ESO Phase 3 Data Release Description

Gaia-ESO Survey Release 5.1

Abstract

Gaia-ESO is a large public spectroscopic survey carried out with FLAMES, targeting 114916 stars, systematically covering all major components of the Milky Way, from halo to star-forming regions, providing the first homogeneous overview of the distributions of kinematics and elemental abundances. This alone is revolutionising our knowledge of Galactic and stellar evolution: when combined with *Gaia* astrometry the survey quantifies the formation history and evolution of young, mature and ancient Galactic populations. With well-defined samples, we have observed the bulge, thick and thin discs and halo components, and open star clusters of all ages and masses. The UVES and GIRAFFE spectra have: quantified individual elemental abundances in each star; yielded precise radial velocities for a 4-D kinematic phase-space; mapped kinematic gradients and abundance; followed the formation, evolution and dissolution of open clusters as they populate the disc and provided a legacy dataset that adds enormous value to the Gaia mission and on-going ESO surveys.

Overview of the observations

This is the last release of the Gaia-ESO Survey (GES) and include all the astrophysical parameters derived from the observations carried out between December 2011 and January 2018. These include Milky Way field observations, Open Cluster observations, and calibration observations of different targets, such as radial velocity standard stars, benchmark stars, globular clusters, COROT and Kepler 2 red giants and more (see Pancino et al. 2017, A&A, 589, A5). There are also included astrophysical parameters derived from complementary observations extracted from the ESO archive and processed with the GES pipelines. These encompass mostly cluster observations retrieved to benefit both science and calibrations as well as some bulge observations and are denoted by use of the prefix 'AR' rather than 'GE' in the GES_TYPE header keyword of the spectra. See Table 1 for a list of GES_TYPEs and the corresponding field types. Figure 1 shows the location of the fields on the sky.

Table 1: The list of GES_TYPE header keywords used within the Survey to denote the observation and field types, and their definition.

GES TYPE prefix	**Observation type**
GE	Observed by GES
AR	ESO Archive Observation
GES_TYPE[1]	**Field type**
*_MW	Milky Way programme
*_MW_BL	Milky Way programme: bulge field
*_CL	Open Cluster programme field

[1] In the following list "*" denotes either the string 'GE' or 'AR', which complete the GES_TYPE keyword.

*_SD_BM	Standard field: FGKM benchmark stars
*_SD_CR	Standard field: CoRoT field
*_SD_GC	Standard field: Globular Cluster
*_SD_K2	Standard field: Kepler 2 field
*_SD_OC	Standard field: Open Clusters
*_SD_PC	Standard field: Peculiar stars
*_SD_RV	Standard field: Radial velocity standards
*_SD_TL	Standard field: Telluric standards

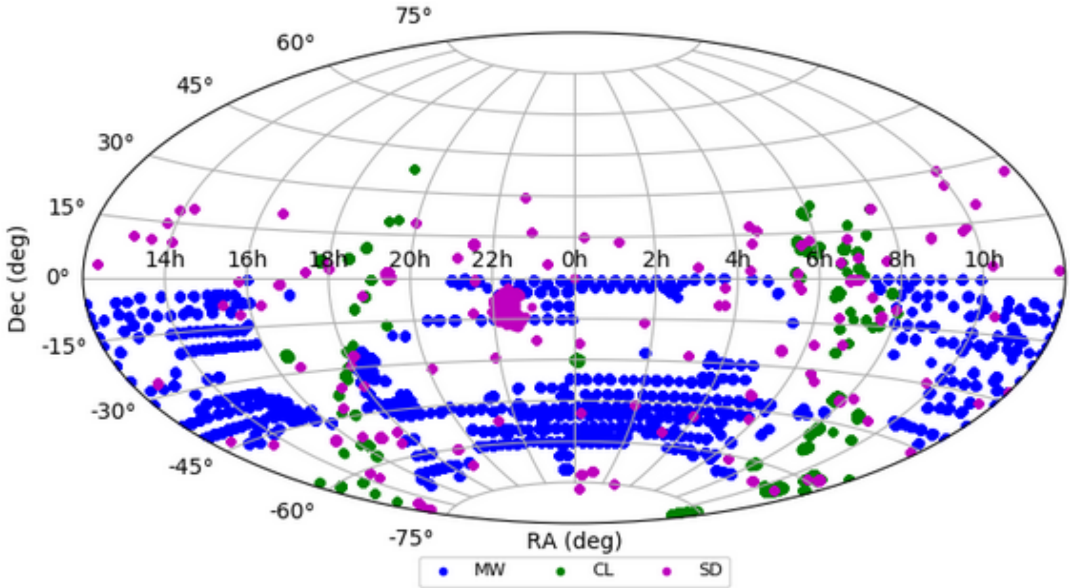

Figure 1: Sky of the GES field. Blue, Green and Magenta dots indicate the Milky Way, Cluster and Calibration fields. Figure taken from Randich et al. (2022, A&A, 666, A121).

The MW targets survey the Bulge, Halo, Thick Disc and Thin Disc populations of the Milky Way. Three primary instrumental setups were used for these observations: UVES 580 for brighter objects and Giraffe HR10 and HR21 for fainter ones. For the Bulge survey observations of K giants were carried out for the brighter objects (GK stars) using UVES 580, otherwise Giraffe HR10 and/or HR21 were used. For the Halo/Thick disc survey, the primary targets were F+G stars, where bluer fainter F stars probe the halo, and brighter F/G stars probe the thick disc. The outer thick disc is probed using distant F/G stars, as well as K giants to sample the far outer disc. For the solar neighbourhood, G stars were observed using UVES 580 only. A more detailed description of the Milky Way field selection strategy is reported in Gilmore et al. (2022, A&A, 666, A120)

The open cluster (CL) survey aimed to cover the age-metallicity-distance-mass parameter space. Open cluster stars are observed with the Giraffe HR15N and UVES 580 setup with exception of early type stars (spectral type A and earlier) that were observed with bluer setups of both Giraffe (HR03/04/5A/6/9B/14A/15N), and UVES (UVES520).
Normally, the faint cluster members ([pre-]main sequence or turn-off stars) were observed using Giraffe, while for the brighter stars (typically evolved giants or bright [pre-]main sequence cluster candidates) UVES parallels are employed. Limiting magnitudes for cool stars (later than A-type) are V=16.5 and V=19 mag for UVES and Giraffe respectively. Different magnitude ranges are covered in clusters where hot stars are observed with the blue setups. An

overlap in magnitude between the Giraffe and UVES samples is present normally and a number of stars were observed with both instruments for inter-calibration purposes.

Within each cluster, the target selection procedure was implemented slightly differently between Giraffe and UVES, but uniformly across clusters. Namely, for Giraffe, with which we aim to observe unbiased and inclusive samples, cluster candidates are selected on the basis of photometry. We used proper motions and other membership indicators (like e.g., X-ray emission) only to define the photometric sequences and the spatial extent of the clusters. In general, we did not use proper motions to select the targets, although in some cases they were employed to discard secure non-members. For UVES, with which we aim to target more secure cluster members, we instead employed membership information from the literature (e.g., radial veleocities , Li abundance, Hα emission), when available. More details on properties of the observed clusters and on the target selection strategy can be found in Randich et al. (2022, A&A, 666, A121) and Bragaglia et al. (2022, A&A, 659, A200).

For both MW and CL, the range of observations are restricted to $+10 \geq \mathrm{Dec} \geq -60$ whenever possible to minimise airmass limits (in practice a few target clusters are outside of this range). Figure 2 shows the seeing distribution, for the combined MW and CL dataset. Figure 3 shows instead the range of observing conditions during which the observations were taken. The primary source catalogue for the Milky Way field stars is VISTA imaging, ensuring excellent recent astrometry, and adding maximal value to the VISTA surveys. Photometry for the open clusters mainly comes from the literature and 2MASS. Astrometry is from 2MASS.

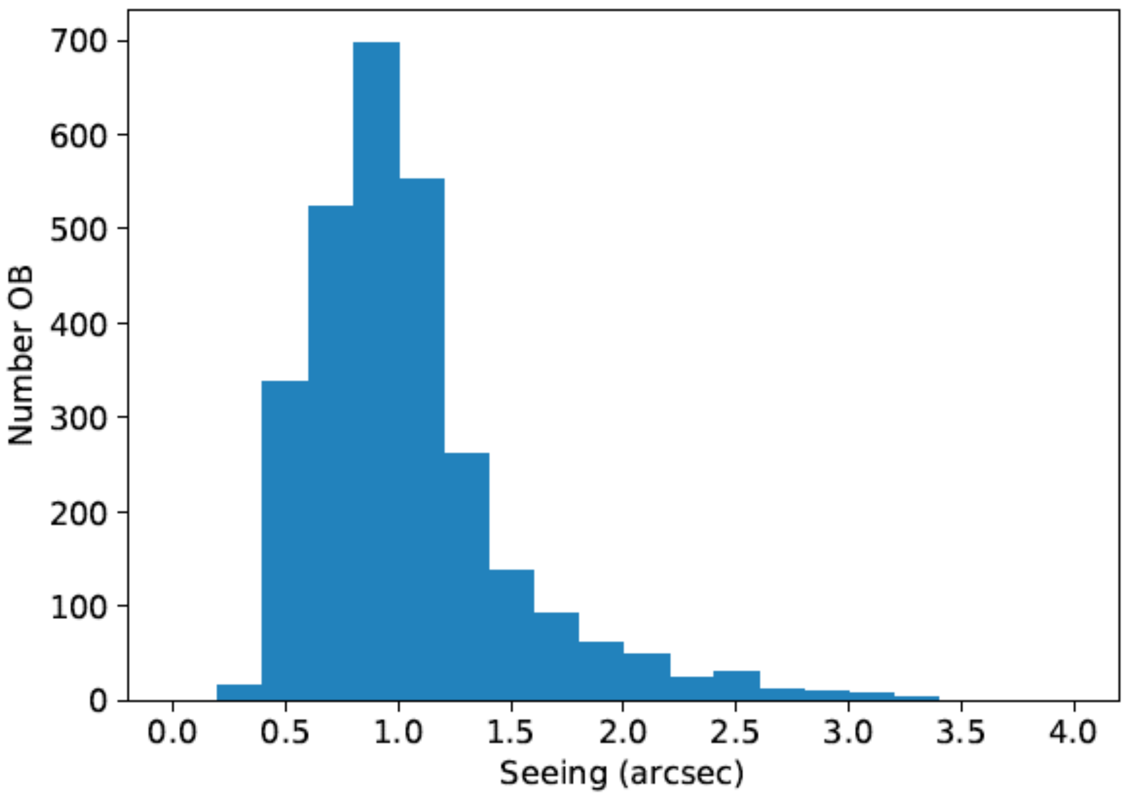

Figure 2: Seeing distribution for combined MW and CL dataset. Figure taken from Randich et al. (2022, A&A, 666, A121).

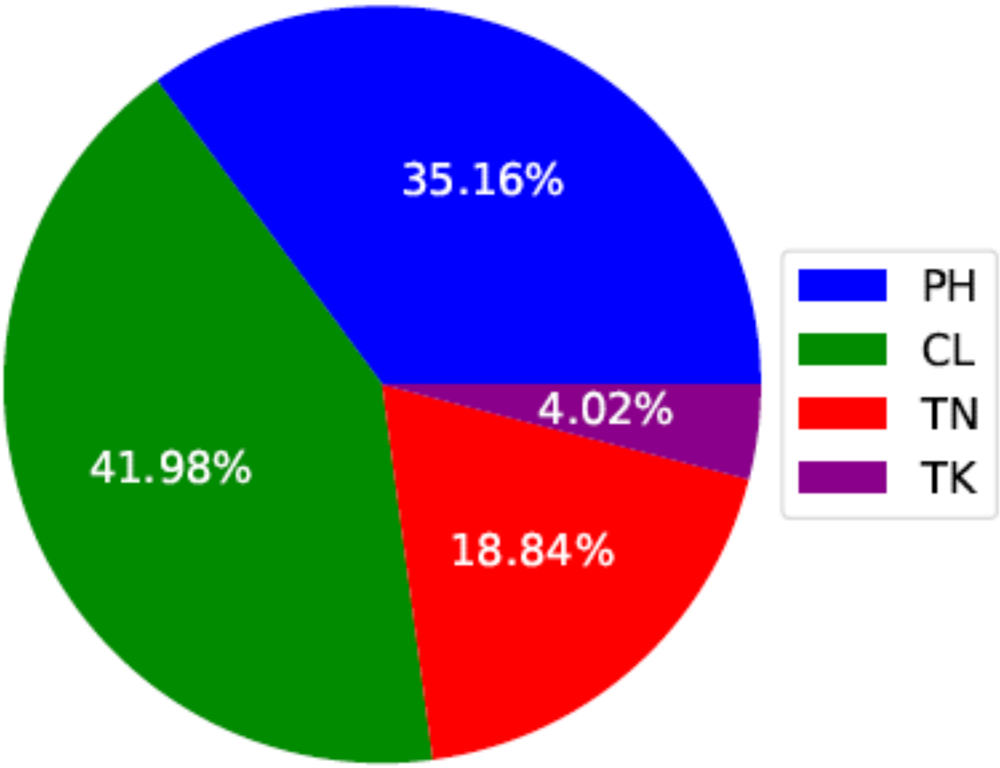

Figure 3: Range of conditions during which the observations were taken: PH = photometric, CL = Clear, TN = Thin cirrus cloud, TK = Thick cirrus cloud. Figure taken from Randich et al. (2022, A&A, 666, A121).

Release content

SPECTRA

This release includes 1366 spectra. These spectra were not included in DR4.0 and have been used to derived the astrophysical parameters for 592 stars that were not in the DR5.0 catalogue.

CATALOGUE

The catalogue contains astrophysical parameters for 114916 stars, 592 more than included in DR5.0 catalogue. In particular, it contains radial and projected rotational velocities, stellar parameters (effective temperature, surface gravity and metallicity), abundances of several elements, specific parameters for tracing accretion and activity in young stars, and for the targets of the cluster fields the probability to be members of the cluster calculated combining GES radial velocities with astrometry from Gaia EDR3 release by Jackson et al. (2022, MNRAS, 509, 1164). Figure 4 reports the percentages of stars for which the main products were derived divided by setup and Fig. 5 the percentages of stars for which different elements were determined. The detailed content of the table is reported in the data format section.

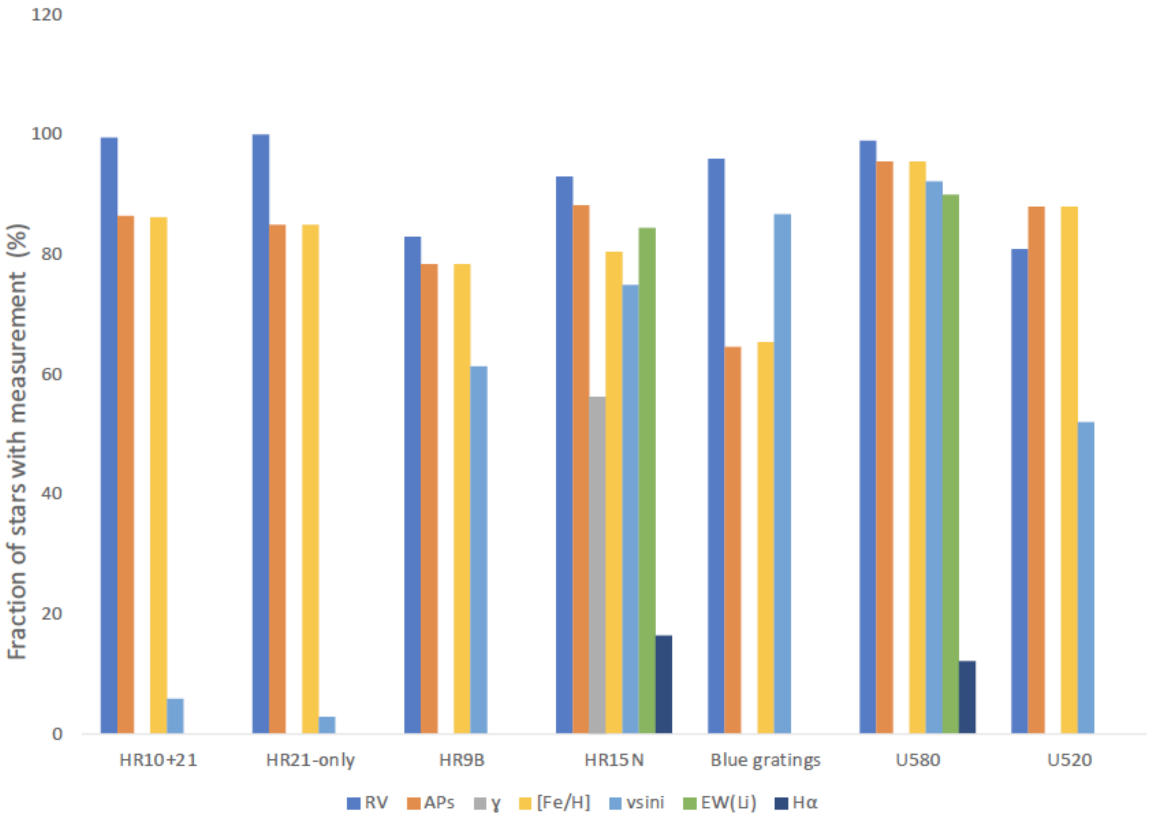

Figure 4 Percentages of stars for which the different main products were derived, divided by setups. Blue gratings denote HR3, HR4, HR5A, HR6, HR14A together. Figure taken from Randich et al. (2022, A&A, 666, A121).

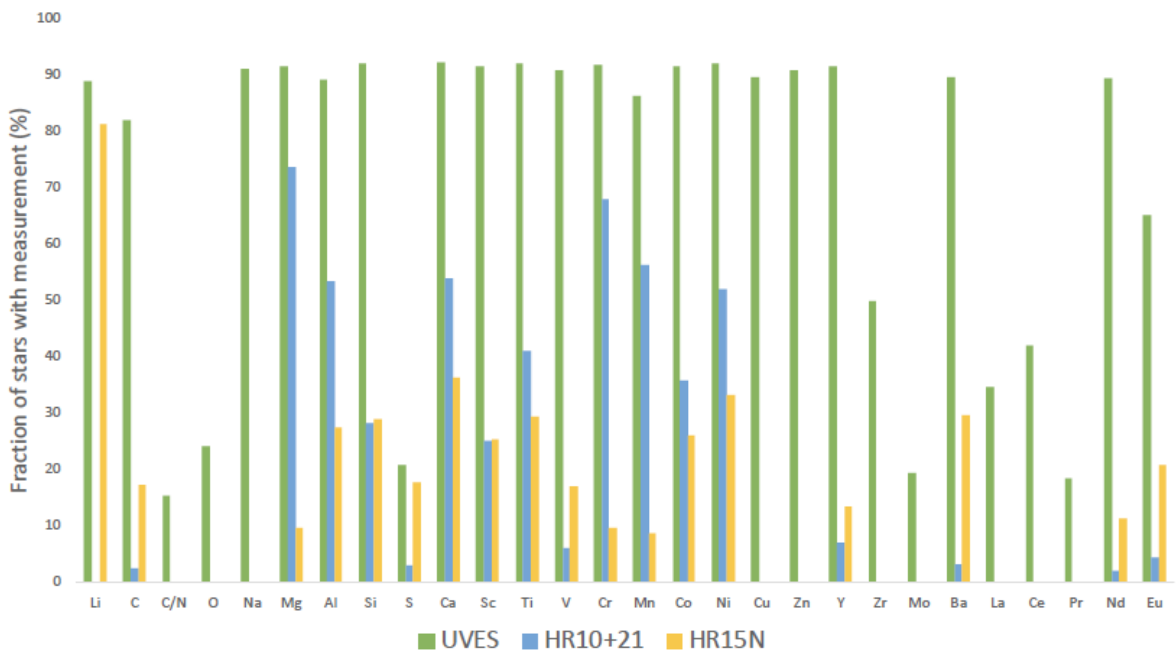

Figure 5: Percentages of stars for which the different elements were determined. Figure taken from Randich et al. (2022, A&A, 666, A121).

Release Notes

Data reduction and calibration

The standard Gaia-ESO observing procedure is to divide each observing block into three exposures (except for Giraffe HR21 which is normally divided into two). Two of these are long exposures which are then co-added to eliminate residual cosmic rays, and one is a short exposure (of a few seconds), which is taken for the purpose of obtaining a simultaneous arc lamp spectrum (SIMCAL) with Giraffe for the wavelength calibration. Spectra from the short exposures are not co-added when creating the final spectra.
Departures from this observing pattern exist – in the case, for example, of periods of poor seeing when additional exposures of a field have been obtained with the aim of increasing the signal-to-noise ratio (SNR). Conversely, during occasional periods of exceptionally good seeing, only one exposure of a field may be taken.
Multi-epoch exposures are defined to be those composed of individual exposures originating from more than one night. A night is defined as the 24-hour period from noon-noon local time (16:00-16:00 UT).

REDUCTION PIPELINE: GIRAFFE

The Giraffe spectra were reduced by a pipeline that was specially written at the Cambridge Astronomical Survey Unit (CASU). It performs all of the following steps:

- Bias correction and 2D flat fielding. The latter is done using test dome flats that are taken periodically as part of the instrumental health checks. Although these are not dispersed flat fields and, of course, flat fields are wavelength dependent, using these does take out a large amount of the pixel-to-pixel variation. (Unfortunately dispersed flat fields without the fibre feed in the light path are not available);
- Localisation and tracing of the fibre spectra using fibre flat field images. The optimal extraction profile fits are also done at this point;
- Extraction of arc spectra, identification of arc lines and wavelength-solution calculation;
- Removal of scattered light, extraction and wavelength calibration of object spectra. The spectra are wavelength calibrated using the arc solution and also shifted to the solar rest frame. For all but the HR21 setting the SIMCAL lamp spectra are used to define a correction to the wavelength solution that is also applied here. For HR21 a similar correction is applied using a subset of well-studied night-sky lines;
- Sky correction using combined sky fibres from the field. For all but HR21 the combined sky spectrum is used as is and is subtracted from each object spectrum. For HR21, the sky spectrum is scaled by the relative fluxes of the sky lines to ensure cleaner sky removal;
- Repeat exposures of the same objects are stacked and cosmic rays are removed. These are then normalised by the fibre flat field to remove the large-scale wavelength-dependent variation in each fibre.

REDUCTION PIPELINE: UVES

The UVES data were reduced at INAF-Arcetri, using the public ESO FLAMES-UVES pipeline for the standard steps of the data reduction process (e.g., bias subtraction, flat-fielding and wavelength calibration) and a pipeline written at INAF-Arcetri for the sky-subtraction, barycentric correction co-addition. Details of the reduction process can be found in Sacco et al. 2014, A&A 565, 113).

The main steps are summarized below.The reduction is performed in a semi-automatic way, following a reduction cascade. Relevant raw data, including both calibration and science frames, are selected and inserted into the reduction path.

All acquired data are pipeline-reduced using the best possible master calibration products, which are produced starting from the best available day-time calibration frames. After quality checks, these are applied to the reduction of science data. The standard reduction steps followed are:

- Bias subtraction;
- Flat-fielding;
- Tracing of the spectral order position;
- Wavelength calibration;
- Optimal extraction of science spectra (spectra are de-convolved for fibre cross talk and
- intra-order background is subtracted);
- Spectra are corrected for differences in fibre transparency;
- The orders are merged;
- The zero point of the wavelength calibration is corrected according to the position of the sky emission lines (U580 setup).
- The sky spectrum from the fibre allocated to the sky is subtracted from the target spectra. This step is performed both on the individual orders, and on the merged spectra. When more than one fibre is allocated to the sky, the median of the sky spectra is subtracted;
- Both single order and merged spectra are shifted to a Heliocentric reference system;
- Both single order and merged spectra of the same target are co-added;
- A median SNR ratio across the whole spectrum is calculated, for both CCDs;
- All co-added spectra are flagged for binarity;
- Final quality checks are performed on the spectra (see Data Quality section);

POST-PROCESSING

The normalisation applied to the spectra depends on the particular science goal of the analysis. The choice of continuum level in particular is an individual one which is left as a scientific choice for the end user. As we did in the first release, we deliver here non-normalised spectra to ensure that no valuable information is lost from the spectra. For the UVES echelle spectra, we have merged the spectral orders and deliver only the merged spectra.

Radial Velocities

UVES

The radial velocities (RVs) for the UVES spectra have been calculated by cross-correlating the observed spectra with a library of templates downgraded to the UVES resolution. Since this method is not efficient for measuring the RVs of early type stars (A-, B-, and O-type), for this subgroup we used a different approach based on spectral fitting described in Blomme et al. (2022, 661, A120). The RVs measured for early type stars are homogenised with the RVs measured from the other UVES spectra and from the GIRAFFE spectra by the working group in charge of the homogenisation. As discussed in Jackson et al. (2015, A&A, 508, A75) and Sacco et al. (2014, A&A, 565, A113), for most of the spectra the major source of error is the uncertainty in the zero point of the wavelength calibration. This component was reduced for the Giraffe observations by collecting arc lamp spectra simultaneously with each OB, but given the limited number of fibres available for UVES (6 to 8 depending on the setup), we decided not to take the simultaneous arc-lamp and perform a standard wavelength calibration using the arc-lamp taken in daytime. After iDR4, we started correcting the zero point of wavelength calibration using the emission lines from the sky spectrum. After the introduction of this correction the median error on RVs is 0.32 km/s. The final errors on the RV of single stars also depend on the projected rotational velocities, on the spectral type of the stars and on the SNR.

GIRAFFE

All spectra are iteratively matched against a range of templates to identify the most suitable object-specific templates, thus determining the output RV, and its probability distribution function. Errors are estimated from the curvature of the chi-square surface around the minimum and then empirically corrected to reflect the systematic error floor limit different for each instrument setup as further described in Koposov et al. 2011, ApJ,736, 146). Thanks to the observations of radial velocity standard stars, the radial velocities for all of the setups observed could be shifted to a common zero point.

Spectrum analysis

Five working groups (WGs) share this task, focusing on Giraffe and UVES spectra of FGK normal stars (WG10 and WG11, respectively), of cool pre-main sequence stars (WG12), of OBA-type stars (WG13), and on unusual objects (WG14), respectively. Within each WG several nodes participate in the analyses. An early lesson from working with many analysis teams was the critical need to have a well-understood, common, suitable line-list for the analyses, a common set of model atmospheres, a common grid of synthetic spectra, and a common approach to data formats and standards. All of these have been made available to the analysis groups and are regularly updated thanks to the efforts of dedicated teams (e.g., Heiter et al. 2021, A&A, 645, A106).

Once the node analysis within the different WGs has been completed, WG recommended parameters were derived using the calibrators (in particular the Gaia benchmark stars) to evaluate and weight node performances. After this stage, parameter and abundance homogenisation across WGs was performed. This step involved putting the parameters and abundances derived by the different WGs for the different types of stars on the same scale. It is carried out based on common targets and calibrators analysed by all the spectrum analysis nodes and WGs. WG15 is the top-level working group responsible for the homogenising all the WG results into the final GES single star catalogue.

The different node analyses are based on several complementary standard, as well as special-purpose, spectrum analysis methodologies. The structure of the WGs provided close coordination between the teams, ensuring the optimum range of analyses are applied to the various stellar and data types as appropriate. The methodologies were all established, all publicly well-documented, forming the basis of the most modern spectrum analyses in the literature.

The overall approach for the spectral analysis and the homogenisation of the results from the various WG is described in Gilmore et al. (2022), while details about the work carried out within some specific WG is described in Smiljanic et al. (2014, A&A 570, 122), Lanzafame et al. (2015, A&A, 576, 80L), Blomme et al. (2022).

Data Quality

SPECTRA

The quality array ('QUAL') delivered along with the spectra in the data files codes data values as good quality (0) or bad quality (1). These code values are derived from weight maps where a value of '1' represents a bad pixel.
The distribution of the SNR values for the UVES and GIRAFFE spectra is shown in Figure 5. Further quality control that is applied to the spectra is described below.

QUALITY CONTROL: GIRAFFE SPECTRA

QC on the Giraffe data is carried out as part of the spectral template fitting which then assigns a basic classification.
The main criteria defining this classification are:

- the $\chi 2$ of the fit;
- the SNR (calculated per pixel);
- the $\chi 2$ of the pure continuum fit; and
- the distance to the best fit template.

The spectrum is marked as UNKNOWN instead of STAR when the continuum-only fit is better or almost as good as the template fit. The $\chi 2$ and/or distance to the best-fit template are higher than a certain SNR-dependent threshold. The reduced spectra then undergo a visual inspection for any remaining artifacts, and if detected, these artifacts are corrected before release of the spectra for analysis.

QUALITY CONTROL: UVES SPECTRA

Quality control (QC) on the UVES data is performed in two steps:

- Check on the quality of the calibration frame by comparing the QC parameters, which are given as output by the ESO pipeline, with the typical values published on the ESO website. This approach allows us to verify the instrument stability (e.g. the stability of the bias frame or the precision of the wavelength calibration);

- Visual inspection of the final spectra aimed at discovering artifacts or other anomalies (e.g., in the wavelength calibration). If this analysis identifies anomalies in one or more spectra, the whole workflow, since fibre allocation, is investigated. Once the problem is identified, the reduction is performed again to improve the quality of the spectra;

Radial Velocities

Radial velocities per object spectrum were determined during the spectral processing, as described above. Quality Control on UVES pipeline radial velocities was performed by the reduction team itself, while the group at Keele University performed QC on the GIRAFFE radial velocities by looking at the nightly spectra. Jackson et al. (2015) have analysed the achieved precision as a function of SNR, stellar parameters, and vsini; the analysis has shown that the maximum achieved precision is of the order of 0.25 km s^{-1}, matching the initial goal. A lower precision is achieved with UVES (0.32 km s-1), due to the lack of simultaneous calibration exposures.
The range of instrumental setups with which a star is observed, and hence the number of available spectra with associated radial velocities, varies per star. Calibrators, for example, have typically been observed with a broader range of instrumental configurations and will thus have a relatively greater number of RV determinations than a typical field star. Additionally, particular analysis nodes and WG delivered revised estimates of the RV for their targets of interest that they determine during their specialised analysis for the parametrization of these spectra. Thus, as with most of the quantities derived from the spectral analysis, multiple radial velocity results were available per object and these need to be homogenised to produce a single recommended radial velocity per object. As part of the homogenisation by WG15, RVs measured with different instrumental setups were compared, and offsets were applied to bring the radial velocities onto a scale with a common zeropoint. The radial velocities from the HR10 setup were used to establish the zeropoint of the radial velocity scale due to their good agreement with the literature values of the Gaia RV Standards (Soubiran et al. 2018, 616, A7; see Figure 6), which were observed by GES.

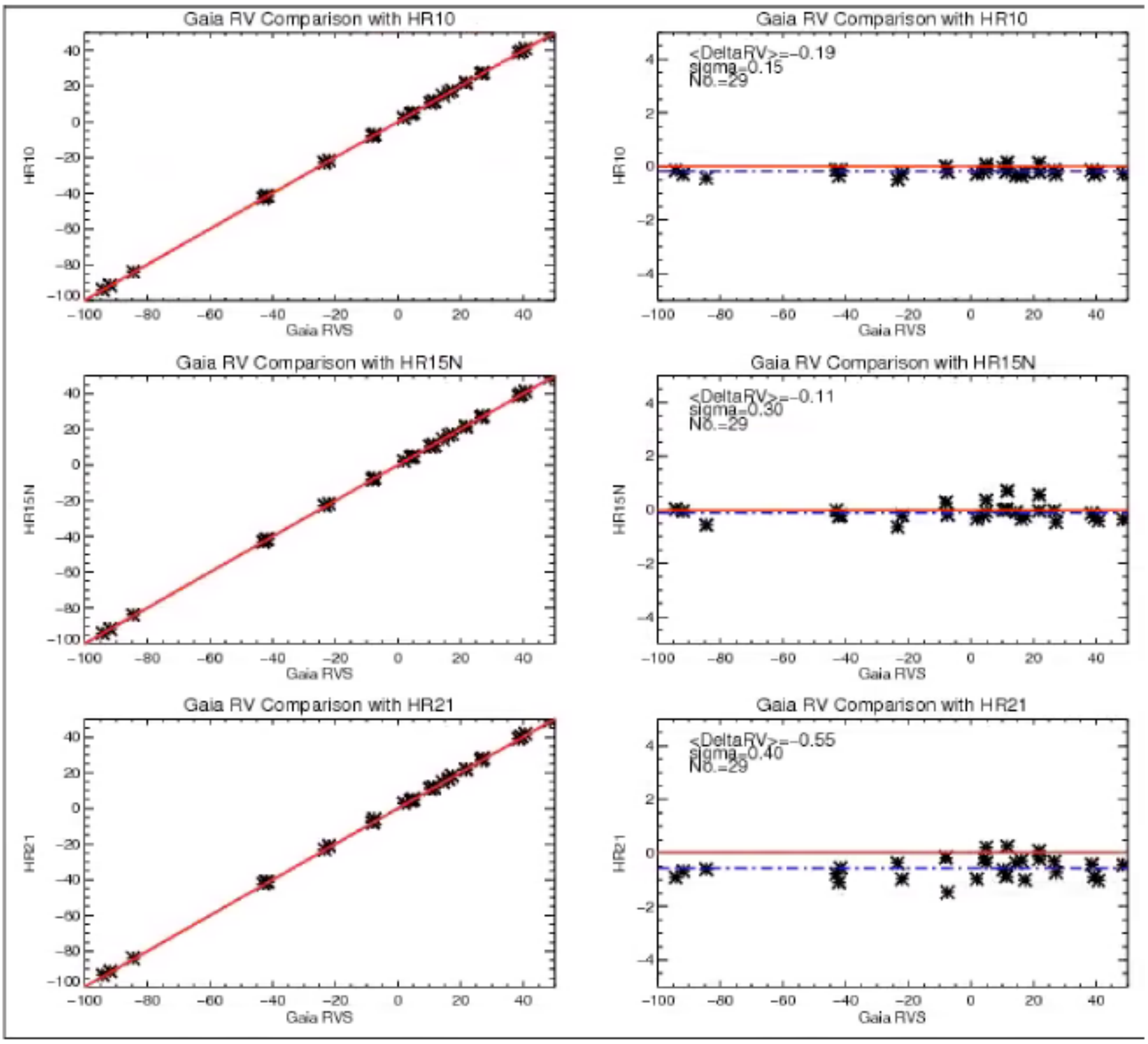

Figure 6: Comparison of RVs determined for the Gaia RV Standards by the Gaia-ESO Survey pipeline for various GIRAFFE setups with reference values from Soubiran et al. (2018, A&A, 616, A7). Figure taken from Gilmore et al. (2022, A&A, 666, A120).

Stellar Parameters

As the full set of stars observed by Gaia-ESO covers a larger range of stellar parameters, it is mandatory to perform a series of checks. As a part of the homogenisation by the WG15, to evaluate any possible offsets between WGs we used the stars in common amongst different WGs that give us a direct estimate of the differences between WGs' results.
A second test was to plot the Hertzprung-Russell diagram of Milky Way stars from the different WGs in the same metallicity range and compare these distributions with the theoretical (see Fig. 7). A third test used the member stars in open and globular clusters, which were both considered to be composed of chemically homogenous populations. Clusters are particularly important in the process of homogenisation as they allow us to put stars that are not common between WGs on a common scale as hot, massive cluster stars and pre-main sequence stars.
Globular clusters are important as they cover a wide range in metallicity for which both GIRAFFE and UVES observations were completed. They were investigated for Teff, log g, [Fe/H] offsets between U580 and HR10+HR21 samples. To allow a comparison of the results of the different WGs and a final homogenisation of the whole Gaia-ESO Survey results, several

open clusters are observed in more than one setup and are analysed by several WGs. These so-called intercalibration clusters give a solid ground to perform the comparison of the results between different WGs and different setups. For both open and globular cluster, an important check is to estimate qualitatively the agreement with a theoretical isochrone (PARSEC).

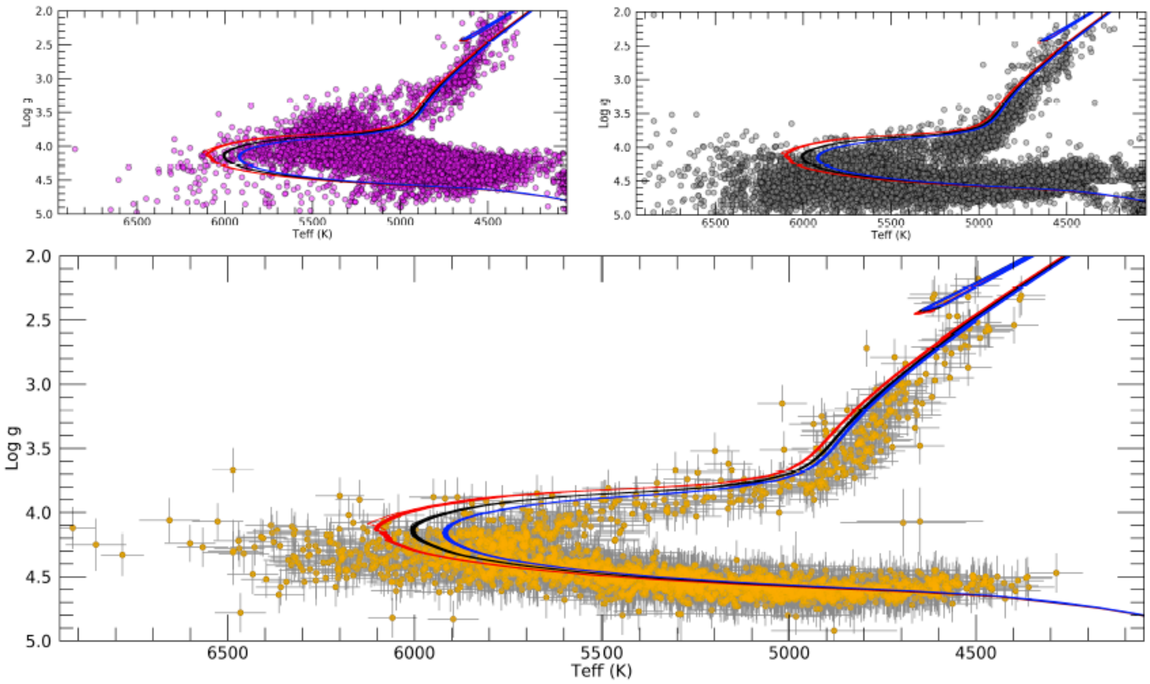

Figure 7: Log g vs. Teff diagrams of Milky Way stars in the metallicity range -0.2< [Fe/H]< 0.2 dex. In the central panel we show, in orange, the recommended stellar parameters from WG10, while in the two upper panels with different colours and symbols we show the results of the two individual nodes contributing to the final parameters for MW field stars. PARSEC isochrones (Bressan et al. 2012, MNRAS, 427, 127) at solar metallicity and three different ages (2 Gyr in red, 5 Gyr in black, and 7 Gyr in blue) are shown. Figure taken from Randich et al. (2022, A&A, 666, A121)

Abundances

Also as a part of the homogenisation by the WG15 for the chemical elements, the first step was to check the solar and the benchmark abundances and look for possible offsets with respect to the literature values. The abundances measured in the stars in common between WGs were then compared to check for possible offsets. The abundance ratios vs [Fe/H] determined in the open clusters (both calibration and science open clusters) were then computed for the different WGs to check for anomalies. The same work was also performed on globular clusters. Median elemental differences between WG10 and WG11 were determined and used to find o sets and/or trends as a function of metallicity. The Milky Way stars abundances were also compared to literature data and checked for offsets and trends as a function of metallicity.

Previous Releases

The previous release included the astrophysical parameters for all the stars included in this one except 592. The previous release of spectra (DR4.0) includes all the spectra except 1366 spectra included in this one.

Data Format

Files types

The catalogue file provided for this release is in the format as specified in version 8 of the ESO Science Data Products Standard. The catalogue consists of a FITS file with a primary header unit containing no data and two binary FITS table extensions containing the catalogue data and the provenance file information.
The catalogue column GES_TYPE specifies the type of the Gaia-ESO Survey field (values are listed in Table 1 in the Overview of Observations Section). GES_TYPE is intended to provide useful supplementary information on the field for the user.

Catalogue Columns

The catalogue file includes 350 columns which are listed in Table 2. The table includes several columns that can be used to better identify and select the targets (coordinates, field name, cluster membership etc…), columns that allow the user to understand which WG carried out the analysis and several columns to assess the quality of the derived parameters. We also include three columns with flags (TECH, PECULI and SFLAGS), that are described in detail in the section below.

Flags

A sophisticated system of flags (detailed flags, hereafter) has been designed within the Gaia-ESO survey to report and keep track of issues occurring during the analysis (TECH) and also to indicate physical peculiarities on a given target (PECULI). The TECH flags cover a broad range of topics (S/N, data reduction, determination & quality of stellar parameters/chemical abundances). The syntax of the flags allows the quick identification of the issue (prefix), traces the originating working group (WG ID) and node (node ID) and, in some cases, has extra-information (suffix).
However, this system is too sophisticated for the end-users willing to quickly use the Gaia-ESO data. A system of simplified flags has thus been designed for the Gaia-ESO survey as reported below. The list of Simplified flags is reported in Table 3, while the Tables 4, 5, 6 and 7 can be used to interpret the Flags reported in the columns TECH and PECULI.

Simplified flags

These simplified flags are meant to enable the end-users to quickly filter the data to do their science. Therefore, they should allow for the quick rejection of objects with nonphysical or highly suspicious results. They complete the information already carried by the error bars associated to observables. Converting any flag in the simplified scheme will cause a loss of valuable information, and therefore, it is important to release also the detailed flags. The simplified flags consist of a small acronym (three letters) whose meaning is easily recoverable or can be easily guessed without looking at the documentation. They are coded with booleans (FALSE/TRUE), each in an individual column, allowing the end-users to easily sort from them. The acronym and meaning of each flag are listed in the table below. A comment is also provided to specify when the flag is raised and briefly illustrate the conversion from the detailed scheme to the simplified scheme. The default value of the simplified is False; in other words, only the value True is carrying information.

All TECH flags (except some "neutral" flags that are dropped during the conversion) have been translated into simplified flags (see next paragraph). On the other hand, only two simplified flags are defined to summarise the information carried by the most used PECULI flags in order to quickly identify a/ if the object is suspected to be spectroscopic multiple (BIN) or b/ if emission lines are observed (EML).

Three simplified flags (SNR, SRP, SDS) deal with the intrinsic quality of the reduced spectra. The simplified flags about stellar parameters (IPA, SSP, PSC) only deal with the effective temperature, the surface gravity, the metallicity and microturbulence. Two simplified flags (NIA, SSA) give a general indication on the availability of abundance determinations (for any element but iron) for a given star. There is a dedicated simplified flags for the radial velocity (SRV), on the one hand, and the rotational velocity (SRO), on the other hand.
It is not possible to have a limited set of simplified flags and at the same time have a detailed assessment of each stellar parameter (resp. abundance). It means that the end-users have to make some further checks (e.g. based on the detailed flags) to decide which abundances can be kept when an object has the flag "some suspicious abundances" raised. During the process of reducing the detailed flags to the simplified flags, a conservative approach was adopted, meaning that the problems might be less severe than indicated by the simplified flags. For example, the SSP (some suspicious parameters) or IPA (incomplete parameter) flags are sometimes raised when some, though not all, analysis nodes had uncertain parameters or abundances, and though other nodes might well have provided reliable results. Similarly, the flag SSA gives a general appreciation for the quality of abundance ratios attached to a given star. Given that, for instance, up to twenty chemical species are investigated in UVES observations, it is impossible for a unique simplified flag to give an accurate picture. Therefore, we advise to use the flag SSA in a second step when outliers remain in the user's selection to identify objects for which a look at the *detailed* flags may be necessary. On the other hand, we think that the simplified flags SNR, SRP, NIA can be used to clean a priori the user's sample.

Notes on Li line and abundances

The measurements of the Li abundances are based on a single line at 6707.8 Å, which may be partially blended with a Fe Line at 6707.4 Å. Furthermore, in cool and young stars measurements of Li abundance can be affected by systematic errors due the presence of molecular bands, high rotation rate, and continuum emission produced by material accreting into the star from the protoplanetary disk (i.e., veiling). For these reasons, the measurements of Li abundances have been carried out by a specific team and we report in the catalogue a few additional columns, including different measurements of the equivalent width (EW) of the Li line and an estimate of the veiling.

- Column EW_LI contains the measured total EW of the Li 6707.8 plus Fe 6707.4 blend. This column is filled only for measurements obtained from Giraffe spectra, or from UVES spectra with high rotation rate, where the two lines cannot be deblended. For stars observed with Giraffe with Teff <~ 4250 K, where the Li line is affected by molecular bands, the provided value is a pseudo-EW obtained by integrating the spectrum over a fixed interval.

- Column EWC_LI contains the Li-only EW: this was directly measured for UVES spectra with low rotation, where the Li and Fe lines can be deblended (in this case, EW_LI is blank), or was derived from EW_LI applying a correction for the Fe blend for FGK stars with Teff > 4250 K. For stars with Teff <~ 4250 K no correction to the pseudo-EW was applied, and this column is blank.

- VEIL contains a quantitative estimate of the continuum emission due to accretion. In particular, we report the ratio of the excess to photospheric emission. The relation between the true and the measured EW is $EW_{true} = EW_{meas}\,(1+VEIL)$

- Column LI1 contains the lithium abundance, derived from EWC_LI for FGK stars, or from EW_LI for M-type stars. For stars observed with Giraffe with measured veiling 0 < VEIL < 1, EWC_LI and LI1 were computed after applying the veiling correction to EW_LI. For VEIL > 1 no values are provided.

Acknowledgments

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According to the Data Access Policy for ESO data held in the ESO Science Archive Facility, all users are required to acknowledge the source of the data with appropriate citation in their publications.

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Table 2: List of columns included in the catalogue file with the column description and the units.

Column	Description	units
OBJECT	GES object name from coordinates	
GES_FLD	GES field name from CASU	
GES_TYPE	GES Classification System of Target Programmes	
REC_SETUP	Grating setups used for deriving recommended parameters	
RAVAIL_SETUP	Grating setups used for deriving radial velocities	
SETUP	Grating setups used for analysis	
REC_WG	Working group deriving the recommended parameters	
RA	Object Right Ascension	deg
DECLINATION	Object Declination	deg
SNR	SNR of the spectrum used for deriving radial velocities	
TEFF	Effective Temperature	K
E_TEFF	Error on TEFF	K
NN_TEFF	number of nodes that calculated TEFF	
ENN_TEFF	Error on TEFF derived from the nodes	K
NNE_TEFF	number of nodes used to calculate ENN_TEFF	
LOGG	Log Surface Gravity (gravity in cm/s^2)	$\log(cm/s^2)$
E_LOGG	Error on LOGG	$\log(cm/s^2)$
NN_LOGG	number of nodes that calculated LOGG	
ENN_LOGG	Error on LOGG derived from the nodes	dex
NNE_LOGG	number of nodes used to calculate ENN_LOGG	
FEH	Metallicity	dex
E_FEH	Error on FEH	dex
NN_FEH	number of nodes that calculated FEH	
ENN_FEH	Error on FEH derived from the nodes	dex
NNE_FEH	number of nodes used to calculate ENN_FEH	
XI	Microturbulent velocity	km/s
E_XI	Error on XI	km/s
NN_XI	number of nodes that calculated XI	
ENN_XI	Error on XI derived from the nodes	km/s
NNE_XI	number of nodes used to calculate ENN_XI	
VRAD	Radial Velocity	km/s
E_VRAD	Error on VRAD	km/s
ORIGIN_VRAD	working group and/or team that derived the radial velocities	
VRAD_OFFSET	Offset applied to the measured radial velocity	km/s
VRAD_FLAG	Flag on VRAD variability	
NF_VRAD_FLAG	number of measurements used to calculate VRAD_FLAG	
VSINI	projected rotational velocities	km/s
E_VSINI	Error on VSINI	km/s
LIM_VSINI	Flag on VSINI (0=detection, 1=upper limit)	
LI1	Neutral Lithium Abundance	dex

LIM_LI1	Flag on LI1 measurement type (0=detection, 1=upper limit)	
E_LI1	Error on LI1	dex
VEIL	Estimate on the veiling affecting the spectrum	
E_VEIL	Error on VEIL	
EW_LI	Li(6708A) equivalent width	Angstrom
LIM_EW_LI	Flag on EW_LI (0=detection, 1=upper limit)	
E_EW_LI	Error on EW_LI	Angstrom
EWC_LI	Blends-corrected Li(6708A) equivalent width	Angstrom
LIM_EWC_LI	Flag on EWC_LI (0=detection, 1=upper limit)	
E_EWC_LI	Error on EWC_LI	Angstrom
HA10	Halpha width at 10% of peak - accretion	km/s
E_HA10	Error on HA10	km/s
EW_HA_CHR	Halpha EW: activity	Angstrom
E_EW_HA_CHR	Error on EW_HA_CHR	Angstrom
FHA_CHR	Flux of Halpha : activity	$erg/cm^2/s$
E_FHA_CHR	Error on FHA_CHR	$erg/cm^2/s$
FWZI	Full width at zero intensity	Angstrom
E_FWZI	Error on FWZI	Angstrom
EW_HB_CHR	Hbeta EW: activity	Angstrom
E_EW_HB_CHR	Error on EW_HB_CHR	Angstrom
FHB_CHR	Flux of Hbeta : activity	$erg/cm^2/s$
E_FHB_CHR	Error on FHB_CHR	$erg/cm^2/s$
GAMMA	Gravity sensitive spectral index	
E_GAMMA	Error on GAMMA	
PECULI	Peculiarity Flag(s): WG14 Dict.1000-2999	
TECH	Technical Flag(s): WG14 Dict.9000-15000	
SFLAGS	Simplified Quality flags	
MEM3D	probability to be a member of a cluster	
HE1	Neutral Helium Abundance	dex
E_HE1	Error on HE1	dex
NN_HE1	Number of nodes that calculated HE1	
ENN_HE1	Error on HE1 derived from the nodes	dex
NL_HE1	Number of lines used to calculate HE1	
ORIGIN_HE1	Working group that calculated HE1	
C1	Neutral Carbon Abundance	dex
E_C1	Error on C1	dex
NN_C1	Number of nodes that calculated C1	
ENN_C1	Error on C1 derived from the nodes	dex
NL_C1	Number of lines used to calculate C1	
ORIGIN_C1	Working group that calculated C1	
C2	Ionised Carbon Abundance	dex
E_C2	Error on C2	dex
NN_C2	Number of nodes that calculated C2	
ENN_C2	Error on C2 derived from the nodes	dex
NL_C2	Number of lines used to calculate C2	

ORIGIN_C2	Working group that calculated C2	
C3	Double Ionised Carbon Abundance	dex
E_C3	Error on C3	dex
NN_C3	Number of nodes that calculated C3	
ENN_C3	Error on C3 derived from the nodes	dex
NL_C3	Number of lines used to calculate C3	
ORIGIN_C3	Working group that calculated C3	
C_C2	Carbon Abundance	dex
E_C_C2	Error on C_C2	dex
NN_C_C2	Number of nodes that calculated C_C2	
ENN_C_C2	Error on C_C2 derived from the nodes	dex
NL_C_C2	Number of lines used to calculate C_C2	
ORIGIN_C_C2	Working group that calculated C_C2	
N2	Ionised Nitrogen Abundance	dex
E_N2	Error on N2	dex
NN_N2	Number of nodes that calculated N2	
ENN_N2	Error on N2 derived from the nodes	dex
NL_N2	Number of lines used to calculate N2	
ORIGIN_N2	Working group that calculated N2	
N3	Double Ionised Nitrogen Abundance	dex
E_N3	Error on N3	dex
NN_N3	Number of nodes that calculated N3	
ENN_N3	Error on N3 derived from the nodes	dex
NL_N3	Number of lines used to calculate N3	
ORIGIN_N3	Working group that calculated N3	
N_CN	Nitrogen Abundance	dex
E_N_CN	Error on N_CN	dex
NN_N_CN	Number of nodes that calculated N_CN	
ENN_N_CN	Error on N_CN derived from the nodes	dex
NL_N_CN	Number of lines used to calculate N_CN	
ORIGIN_N_CN	Working group that calculated N_CN	
O1	Neutral Oxigen Abundance	dex
E_O1	Error on O1	dex
NN_O1	Number of nodes that calculated O1	
ENN_O1	Error on O1 derived from the nodes	dex
NL_O1	Number of lines used to calculate O1	
ORIGIN_O1	Working group that calculated O1	
O2	Ionised Oxigen Abundance	dex
E_O2	Error on O2	dex
NN_O2	Number of nodes that calculated O2	
ENN_O2	Error on O2 derived from the nodes	dex
NL_O2	Number of lines used to calculate O2	
ORIGIN_O2	Working group that calculated O2	
NE1	Neutral Neon Abundance	dex
E_NE1	Error on NE1	dex
NN_NE1	Number of nodes that calculated NE1	

ENN_NE1	Error on NE1 derived from the nodes	dex
NL_NE1	Number of lines used to calculate NE1	
ORIGIN_NE1	Working group that calculated NE1	
NA1	Neutral Sodium Abundance	dex
E_NA1	Error on NA1	dex
NN_NA1	Number of nodes that calculated NA1	
ENN_NA1	Error on NA1 derived from the nodes	dex
NL_NA1	Number of lines used to calculate NA1	
ORIGIN_NA1	Working group that calculated NA1	
MG1	Neutral Magnesium Abundance	dex
E_MG1	Error on MG1	dex
NN_MG1	Number of nodes that calculated MG1	
ENN_MG1	Error on MG1 derived from the nodes	dex
NL_MG1	Number of lines used to calculate MG1	
ORIGIN_MG1	Working group that calculated MG1	
MG2	Ionised Magnesium Abundance	dex
E_MG2	Error on MG2	dex
NN_MG2	Number of nodes that calculated MG2	
ENN_MG2	Error on MG2 derived from the nodes	dex
NL_MG2	Number of lines used to calculate MG2	
ORIGIN_MG2	Working group that calculated MG2	
AL1	Neutral Alluminium Abundance	dex
E_AL1	Error on AL1	dex
NN_AL1	Number of nodes that calculated AL1	
ENN_AL1	Error on AL1 derived from the nodes	dex
NL_AL1	Number of lines used to calculate AL1	
ORIGIN_AL1	Working group that calculated AL1	
AL2	Ionised Alluminium Abundance	dex
E_AL2	Error on AL2	dex
NN_AL2	Number of nodes that calculated AL2	
ENN_AL2	Error on AL2 derived from the nodes	dex
NL_AL2	Number of lines used to calculate AL2	
ORIGIN_AL2	Working group that calculated AL2	
SI1	Neutral Silicon Abundance	dex
E_SI1	Error on SI1	dex
NN_SI1	Number of nodes that calculated SI1	
ENN_SI1	Error on SI1 derived from the nodes	dex
NL_SI1	Number of lines used to calculate SI1	
ORIGIN_SI1	Working group that calculated SI1	
SI2	Ionised Silicon Abundance	dex
E_SI2	Error on SI2	dex
NN_SI2	Number of nodes that calculated SI2	
ENN_SI2	Error on SI2 derived from the nodes	dex
NL_SI2	Number of lines used to calculate SI2	
ORIGIN_SI2	Working group that calculated SI2	
SI3	Double Ionised Silicon Abundance	dex

E_SI3	Error on SI3	dex
NN_SI3	Number of nodes that calculated SI3	
ENN_SI3	Error on SI3 derived from the nodes	dex
NL_SI3	Number of lines used to calculate SI3	
ORIGIN_SI3	Working group that calculated SI3	
SI4	Triple Ionised Silicon Abundance	dex
E_SI4	Error on SI4	dex
NN_SI4	Number of nodes that calculated SI4	
ENN_SI4	Error on SI4 derived from the nodes	dex
NL_SI4	Number of lines used to calculate SI4	
ORIGIN_SI4	Working group that calculated SI4	
S1	Neutral Solfur Abundance	dex
E_S1	Error on S1	dex
NN_S1	Number of nodes that calculated S1	
ENN_S1	Error on S1 derived from the nodes	dex
NL_S1	Number of lines used to calculate S1	
ORIGIN_S1	Working group that calculated S1	
CA1	Neutral Calcium Abundance	dex
E_CA1	Error on CA1	dex
NN_CA1	Number of nodes that calculated CA1	
ENN_CA1	Error on CA1 derived from the nodes	dex
NL_CA1	Number of lines used to calculate CA1	
ORIGIN_CA1	Working group that calculated CA1	
CA2	Ionised Calcium Abundance	dex
E_CA2	Error on CA2	dex
NN_CA2	Number of nodes that calculated CA2	
ENN_CA2	Error on CA2 derived from the nodes	dex
NL_CA2	Number of lines used to calculate CA2	
ORIGIN_CA2	Working group that calculated CA2	
SC1	Neutral Scandium Abundance	dex
E_SC1	Error on SC1	dex
NN_SC1	Number of nodes that calculated SC1	
ENN_SC1	Error on SC1 derived from the nodes	dex
NL_SC1	Number of lines used to calculate SC1	
ORIGIN_SC1	Working group that calculated SC1	
SC2	Ionised Scandium Abundance	dex
E_SC2	Error on SC2	dex
NN_SC2	Number of nodes that calculated SC2	
ENN_SC2	Error on SC2 derived from the nodes	dex
NL_SC2	Number of lines used to calculate SC2	
ORIGIN_SC2	Working group that calculated SC2	
TI1	Neutral Titanium Abundance	dex
E_TI1	Error on TI1	dex
NN_TI1	Number of nodes that calculated TI1	
ENN_TI1	Error on TI1 derived from the nodes	dex
NL_TI1	Number of lines used to calculate TI1	

ORIGIN_TI1	Working group that calculated TI1	
TI2	Ionised Titanium Abundance	dex
E_TI2	Error on TI2	dex
NN_TI2	Number of nodes that calculated TI2	
ENN_TI2	Error on TI2 derived from the nodes	dex
NL_TI2	Number of lines used to calculate TI2	
ORIGIN_TI2	Working group that calculated TI2	
V1	Neutral Vanadium Abundance	dex
E_V1	Error on V1	dex
NN_V1	Number of nodes that calculated V1	
ENN_V1	Error on V1 derived from the nodes	dex
NL_V1	Number of lines used to calculate V1	
ORIGIN_V1	Working group that calculated V1	
CR1	Neutral Cromium Abundance	dex
E_CR1	Error on CR1	dex
NN_CR1	Number of nodes that calculated CR1	
ENN_CR1	Error on CR1 derived from the nodes	dex
NL_CR1	Number of lines used to calculate CR1	
ORIGIN_CR1	Working group that calculated CR1	
CR2	Ionised Cromium Abundance	dex
E_CR2	Error on CR2	dex
NN_CR2	Number of nodes that calculated CR2	
ENN_CR2	Error on CR2 derived from the nodes	dex
NL_CR2	Number of lines used to calculate CR2	
ORIGIN_CR2	Working group that calculated CR2	
MN1	Neutral Manganese Abundance	dex
E_MN1	Error on MN1	dex
NN_MN1	Number of nodes that calculated MN1	
ENN_MN1	Error on MN1 derived from the nodes	dex
NL_MN1	Number of lines used to calculate MN1	
ORIGIN_MN1	Working group that calculated MN1	
CO1	Neutral Copper Abundance	dex
E_CO1	Error on CO1	dex
NN_CO1	Number of nodes that calculated CO1	
ENN_CO1	Error on CO1 derived from the nodes	dex
NL_CO1	Number of lines used to calculate CO1	
ORIGIN_CO1	Working group that calculated CO1	
NI1	Neutral Nickel Abundance	dex
E_NI1	Error on NI1	dex
NN_NI1	Number of nodes that calculated NI1	
ENN_NI1	Error on NI1 derived from the nodes	dex
NL_NI1	Number of lines used to calculate NI1	
ORIGIN_NI1	Working group that calculated NI1	
CU1	Neutral Copper Abundance	dex
E_CU1	Error on CU1	dex
NN_CU1	Number of nodes that calculated CU1	

ENN_CU1	Error on CU1 derived from the nodes	dex
NL_CU1	Number of lines used to calculate CU1	
ORIGIN_CU1	Working group that calculated CU1	
ZN1	Neutral Zinc Abundance	dex
E_ZN1	Error on ZN1	dex
NN_ZN1	Number of nodes that calculated ZN1	
ENN_ZN1	Error on ZN1 derived from the nodes	dex
NL_ZN1	Number of lines used to calculate ZN1	
ORIGIN_ZN1	Working group that calculated ZN1	
SR1	Neutral Strontium Abundance	dex
E_SR1	Error on SR1	dex
NN_SR1	Number of nodes that calculated SR1	
ENN_SR1	Error on SR1 derived from the nodes	dex
NL_SR1	Number of lines used to calculate SR1	
ORIGIN_SR1	Working group that calculated SR1	
Y2	Ionised Yttrium Abundance	dex
E_Y2	Error on Y2	dex
NN_Y2	Number of nodes that calculated Y2	
ENN_Y2	Error on Y2 derived from the nodes	dex
NL_Y2	Number of lines used to calculate Y2	
ORIGIN_Y2	Working group that calculated Y2	
ZR1	Neutral Zirconium Abundance	dex
E_ZR1	Error on ZR1	dex
NN_ZR1	Number of nodes that calculated ZR1	
ENN_ZR1	Error on ZR1 derived from the nodes	dex
NL_ZR1	Number of lines used to calculate ZR1	
ORIGIN_ZR1	Working group that calculated ZR1	
ZR2	Ionised Zirconium Abundance	dex
E_ZR2	Error on ZR2	dex
NN_ZR2	Number of nodes that calculated ZR2	
ENN_ZR2	Error on ZR2 derived from the nodes	dex
NL_ZR2	Number of lines used to calculate ZR2	
ORIGIN_ZR2	Working group that calculated ZR2	
MO1	Neutral Molybdenum Abundance	dex
E_MO1	Error on MO1	dex
NN_MO1	Number of nodes that calculated MO1	
ENN_MO1	Error on MO1 derived from the nodes	dex
NL_MO1	Number of lines used to calculate MO1	
ORIGIN_MO1	Working group that calculated MO1	
BA2	Ionised Barium Abundance	dex
E_BA2	Error on BA2	dex
NN_BA2	Number of nodes that calculated BA2	
ENN_BA2	Error on BA2 derived from the nodes	dex
NL_BA2	Number of lines used to calculate BA2	
ORIGIN_BA2	Working group that calculated BA2	
LA2	Ionised Lanthanum Abundance	dex

E_LA2	Error on LA2	dex
NN_LA2	Number of nodes that calculated LA2	
ENN_LA2	Error on LA2 derived from the nodes	dex
NL_LA2	Number of lines used to calculate LA2	
ORIGIN_LA2	Working group that calculated LA2	
CE2	Ionised Cerium Abundance	dex
E_CE2	Error on CE2	dex
NN_CE2	Number of nodes that calculated CE2	
ENN_CE2	Error on CE2 derived from the nodes	dex
NL_CE2	Number of lines used to calculate CE2	
ORIGIN_CE2	Working group that calculated CE2	
PR2	Ionised Praseodymium Abundance	dex
E_PR2	Error on PR2	dex
NN_PR2	Number of nodes that calculated PR2	
ENN_PR2	Error on PR2 derived from the nodes	dex
NL_PR2	Number of lines used to calculate PR2	
ORIGIN_PR2	Working group that calculated PR2	
ND2	Ionised Neodymium Abundance	dex
E_ND2	Error on ND2	dex
NN_ND2	Number of nodes that calculated ND2	
ENN_ND2	Error on ND2 derived from the nodes	dex
NL_ND2	Number of lines used to calculate ND2	
ORIGIN_ND2	Working group that calculated ND2	
SM2	Ionised Samarium Abundance	dex
E_SM2	Error on SM2	dex
NN_SM2	Number of nodes that calculated SM2	
ENN_SM2	Error on SM2 derived from the nodes	dex
NL_SM2	Number of lines used to calculate SM2	
ORIGIN_SM2	Working group that calculated SM2	
EU2	Ionised Europium Abundance	dex
E_EU2	Error on EU2	dex
NN_EU2	Number of nodes that calculated EU2	
ENN_EU2	Error on EU2 derived from the nodes	dex
NL_EU2	Number of lines used to calculate EU2	
ORIGIN_EU2	Working group that calculated EU2	

Table 3: List of Simplified Flags.

Acronym	Meaning	Comments: conditions for raising the flag
SNR	No or inaccurate results due to low SNR	This flag is raised if the SNR is lower than 50 and if the object has an incomplete set of parameters.
SRP	Spectral Reduction Problem	This flag is raised if there are no parameters nor abundances

SDS	Some Discarded Spectra	This flag is raised if there are some parameters and abundances despite a reduced amount of usable data. For example, it is raised in case spectral reduction problems affected some settings, preventing from getting all the results, but allowing some parameters and abundances to be nevertheless determined.
IPA	Incomplete Parameters	This flag is raised, typically, when a key set-up for a given parameter is missing, or when the node experienced an issue for converging to a consistent set of parameters, or, alternatively, when the parameters were out of the parameter grid of model atmospheres used by a specific node.
SSP	Some Suspicious Parameters	This flag is raised when some parameters, but not all, could be determined. This can occur when re-normalisation failed, when the code did not converge to a consistent set of parameters, or, again, because the parameters fell out of the node's grid. It also occurs when a parameter was derived outside the group of validated nodes for this parameter. It is also raised in case of spectroscopic multiplicity with at least two visible components (SBn, $n \geq 2$).
NIA	No Individual Abundance (except Fe)	This flag is usually raised when there are too few available lines for abundance determinations (except Fe).
SSA	Some Suspicious Abundances	This flag can be raised for metallicity, e.g. when the Fe I and Fe II lines are discrepant, or for other elements. It is raised in case of high v sini values, or in case of SBn, $n \geq 2$, or when the node was uncertain about this abundance.
PSC	Parameter space coverage	This flag is typically raised when the parameters are not within the model atmosphere grid parameters of the node, or are on the node's grid edge. Some abundances might then be missing.
SRV	Suspicious or unreliable Radial Velocity	This flag is raised in case the CCF was corrupted, or if the RV was discrepant between set-ups, or in case the object was identified as an SBn.
SRO	Suspicious ROtational velocity	This flag is raised in case of no rotational velocity determination, or in case of a too high, or revised, rotational velocity. It is also raised in case of SBn, $n \geq 2$.
BIN	Detected BINary : SB1 or $SBn \geq 2$.	
EML	EMission Line: any line, not only Halpha.	

Table 4: List of PREFIX for the TECH flags.

SNR	
10005	No results or inaccurate results: SNR < 5 for at least one setting
10010	No results or inaccurate results: SNR < 10 for at least one setting
10015	No results or inaccurate results: SNR < 15 for at least one setting
10020	No results or inaccurate results: SNR < 20 for at least one setting
10025	No results or inaccurate results: SNR < 25 for at least one setting
10030	No results or inaccurate results: SNR < 30 for at least one setting
10040	No results or inaccurate results: SNR < 40 for at least one setting
10050	No results or inaccurate results: SNR < 50 for at least one setting
10080	Inaccurate or revised spectral resolution R (use suffix to specify the column with the new determination)
10090	Inaccurate or revised SNR (use suffix to specify the column with the new determination)
DATA REDUCTION	
10100	Saturated spectrum
10103	Suspicious or bad co-addition of exposures
10104	Suspicious or bad spectrum normalisation
10105	Incomplete spectrum (missing wavelengths)
10106	OBSOLETE - rather use 10105 - Broken spectrum (picket-fence pattern, Heaviside pattern, …)
10107	Many or badly placed remaining cosmics
10108	Leak of SimCal fibres in science/sky spectra causing spurious emission features
10110	Suspicious or bad sky subtraction, to be specified using the suffix (it includes problems like: over-subtracted or below-zero spectrum, under-subtraction, velocity mismatch (producing spurious P-Cygni or inverse-P-Cygni-like residuals), problematic airglow subtraction)
10150	Suspicious or bad cross-correlation function (CCF)
10151	No radial velocity determination
10152	Suspicious radial velocity determination
10153	Discrepant radial velocities (use suffix to specify the threshold; e.g., |RV_max-RV_min| > 5*err_RV)
10154	Abnormally large RV error (use suffix to specify the threshold)
10155	Revised radial velocity (use `VRAD' column to specify the new determination)
10200	No rotational velocity (v*sin(i)) determination
10210	Revised rotational velocity (v*sin(i); use `VSINI' column to specify the new determination)
STELLAR PARAMETERS	
10300	Key setup(s) for a given parameter determination is missing
10301	Node's renormalisation failed
10302	Code convergence issue: one of more convergence criteria (node-specific) could not be fulfilled. Criteria to be described using the suffix
10303	Code convergence issue: temperature (Teff) is out of the node's grid. Conditions to be described using the suffix
10304	Code convergence issue: gravity (log g) is out of the node's grid. Conditions to be described using the suffix
10305	Code convergence issue: metallicity ([M/H] or [Fe/H]) is out of the node's grid. Conditions to be described using the suffix

10306	Code convergence issue: microturbulent velocity (vtur) is out of the node's grid. Conditions to be described using the suffix
10307	Code convergence issue: [alpha/Fe] is out of the node's grid. Conditions to be described using the suffix
10308	One or more parameter (which could not be identified) outside the node's grid; if possible rather use 10303-10307 flags
10309	Photometric gravity (instead of spectroscopic gravity)
10311	No parameters because too few Fe I lines
10312	No parameters because too few FeII lines
10313	The node-measured broadening is too small
10314	The node-measured broadening is too large
10315	Microturbulence is determined according to the last Bergemann and Hill prescription (http://great.ast.cam.ac.uk/GESwiki/GesWg/GesWg11/Microturbulence)
10316	Incomplete/missing set of parameters because some parameter(s) are in a specific range. Conditions to be described using the suffix
10317	Incomplete/missing set of parameters because of mass loss / wind determination problems. Conditions to be described using the suffix
10318	Code convergence issue: only upper/lower limit on Teff was derivable but will not be provided. /!\ Use only if Teff is NOT provided. If Teff is provided as an upper/lower limit, absolutely use the fits column LIM_TEFF
10319	Code convergence issue: only upper/lower limit on log g was derivable but will not be provided. /!\ Use only if logg is NOT provided. If log g is provided as an upper/lower limit, absolutely use the fits column LIM_LOGG
10320	Incomplete/missing set of parameters because of suspected multiple stellar system. /!\ Raise also the relevant flags from 20005 to 20070
10390	Recommended metallicity ([M/H] or [Fe/H]) missing since not provided by WGs (to be specified in the suffix) /!\ Reserved flag: WG15 use only
10391	Recommended microturbulent velocity (vturb) missing since not provided by WGs (to be specified in the suffix) /!\ Reserved flag: WG15 use only
10398	Optional: additional information concerning setups used to derive stellar parameters. Extra information to be passed through suffixes
10399	No parameters provided because of lack of time
10500	No EW measurements
10601	Setup not analysed by the node
10602	Target not analysed by the node
11020	v*sin(i) too high, preventing the determination of some/all parameters: v*sin(i) > 20 km/s
11050	v*sin(i) too high, preventing the determination of some/all parameters: v*sin(i) > 50 km/s
11100	v*sin(i) too high, preventing the determination of some/all parameters: v*sin(i) > 100 km/s
11150	v*sin(i) too high, preventing the determination of some/all parameters: v*sin(i) > 150 km/s
11200	v*sin(i) too high, preventing the determination of some/all parameters: v*sin(i) > 200 km/s
11250	v*sin(i) too high, preventing the determination of some/all parameters: v*sin(i) > 250 km/s
11300	v*sin(i) too high, preventing the determination of some/all parameters: v*sin(i) > 300 km/s
CHEMICAL ABUNDANCES	

12000	Key setup(s) for a given abundance determination is missing
12001	Correction of telluric features performed by node. Use suffix to specify the wavelength range where it is applicable
12002	No abundances since some stellar parameters (to be specified in the suffix) are out of the model atmosphere grid
12003	No abundances since some stellar parameters (to be specified in the suffix) are not provided
12004	Metallicity ([M/H] or [Fe/H]) is not provided and is assumed to be solar ([M/H] = 0. or [Fe/H] = 0.)
12005	No abundances since v*sin(i) too high. v*sin(i) lower limit to be specified in the suffix
12006	Abundance determination considered as not reliable by the node
12007	Revised microturbulence velocity
12008	No abundances because too few available lines. Conditions to be described in the suffix
12009	Abundance is not measurable given the star's parameter(s) (e.g.: Li in early-type stars). Conditions to be described in the suffix
12010	No abundance because some parameters are out of the GES Curve-Of-Growth grid. Conditions to be described in the suffix
12011	Updated macroturbulence velocity. Use suffix to specify the source of the advised macroturbulence
12012	Recommended gravity (log g) is not provided. Alternative gravity is computed as described in the suffix
12099	No abundances provided because of lack of time
121ZZ	No abundance for element with atomic number ZZ (01-99) and ionisation level I (neutral); e.g., 12139: Y I. Conditions to be specified in the suffix /!\ This prefix should be used when 1/ only certain elements could not be measured and 2/ as last resort when no flag of the 12000 series is suited
122ZZ	No abundance for element with atomic number ZZ (01-99) and ionisation level II. Conditions to be specified in the suffix /!\ This prefix should be used when 1/ only certain elements could not be measured and 2/ as last resort when no flag of the 12000 series is suited
129ZZ	No abundance for element with atomic number ZZ (01-99) and abundances derived from molecular bands. Conditions and used molecules (+ wavelength ranges if relevant, etc) to be specified in the suffix /!\ This prefix should be used when 1/ only certain elements could not be measured and 2/ as last resort when no flag of the 12000 series is suited
RESULTS QUALITY- STELLAR PARAMETERS	
13000	Microturbulence (vtur): unphysical or unreliable determination
13002	Microturbulence: 2 km/s < vtur
13003	Microturbulence: 3 km/s < vtur
13010	Microturbulence: 10 km/s < vtur
13020	Suspicious stellar parameters because temperature (Teff) is on the node's grid edge. Conditions to be described using the suffix
13021	Suspicious stellar parameters because gravity (log g) is on the node's grid edge. Conditions to be described using the suffix
13022	Suspicious stellar parameters because metallicity ([M/H] or [Fe/H]) is on the node's grid edge. Conditions to be described using the suffix
13023	Suspicious stellar parameters because microturbulent velocity (vtur) is on the node's grid edge. Conditions to be described using the suffix
13024	Suspicious stellar parameters because [alpha/Fe] is on the node's grid edge. Conditions to be described using the suffix
13025	Suspicious macroturbulence because v*sin(i) is too high. Conditions to be described using the suffix
13026	Incompatibility between spectroscopy and photometry

13027	Suspicious stellar parameters: multiple system. /!\ Raise also the relevant flags from 20005 to 20070
13028	Suspicious stellar parameters because v*sin(i) is too high. Conditions to be described using the suffix
13029	Suspicious stellar parameter(s) (to be specified in the suffix) because of limited available setups (to be specified in the suffix)
13030	Suspicious metallicity because of discrepancy between the recommended [Fe/H] and the node [Fe/H] determination
13031	Suspicious stellar parameters because of discrepant [FeI/H] and [FeII/H]. Conditions to be described in the suffix
RESULTS QUALITY - CHEMICAL ABUNDANCES	
14001	Suspicious abundances since v*sin(i) is too high. V*sin(i) lower limit to be specified in the suffix
141ZZ	High dispersion on abundance of element with atomic number ZZ (01-99) and ionisation level I (neutral); e.g., 14120: Ca I. Conditions to be specified in the suffix
142ZZ	High dispersion on abundance of element with atomic number ZZ (01-99) and ionisation level II. Conditions to be specified in the suffix
149ZZ	High dispersion on abundance of element with atomic number ZZ (01-99) with abundances derived from molecular bands. Conditions and used molecules (+ wavelength ranges if relevant, etc) to be specified in the suffix
151ZZ	Telluric features contaminates line(s) of element with atomic number ZZ (01-99) and ionisation level I (neutral); e.g., 15108: O I line at 6300 A. Wavelengths can be specified using the suffix
152ZZ	Telluric features contaminates line(s) of element with atomic number ZZ (01-99) and ionisation level II. Wavelengths can be specified using the suffix
161ZZ	Discrepant abundance ([El/Fe] or A(El)) of element with atomic number ZZ (01-99) and ionisation level I (neutral); e.g., 16120: Ca I. Conditions to be specified in the suffix
162ZZ	Discrepant abundance ([El/Fe] or A(El)) of element with atomic number ZZ (01-99) and ionisation level II. Conditions to be specified in the suffix
171ZZ	Suspicious abundance ([El/Fe] or A(El)) of element with atomic number ZZ (01-99) and ionisation level I (neutral); e.g., 16120: Ca I. Conditions to be described in the suffix. If the cause is revised/missing parameters, raise simultaneously 12004, 12012, 12007 or 12011
172ZZ	Suspicious abundance ([El/Fe] or A(El)) of element with atomic number ZZ (01-99) and ionisation level II. Conditions to be described in the suffix. If the cause is revised/missing parameters, raise simultaneously 12004, 12012, 12007 or 12011
181ZZ	Bad fit of line(s) of element with atomic number ZZ (01-99) and ionisation level I (neutral); e.g., 18120: badly fitted Ca I line. Wavelengths can be specified using the suffix
182ZZ	Bad fit of line(s) of element with atomic number ZZ (01-99) and ionisation level II. Wavelengths can be specified using the suffix

Table 5: List of PREFIX for the PECULI flags

BINARITY	
20000	Key setup(s) for a useful CCF computation is missing
20005	Stars with large radial velocity variations, indicating either large jitter or binary motion
20010	SB1: Stars with radial velocity variations larger than expected jitter for its type, indicating probable binary motion

20020	SBn, n >= 2
20030	SBn, n >= 3
20040	SBn, n >= 4
20070	Composite spectrum
20080	SBn, n>=2 probably spurious because of SBm (m<n) spectra stacking
LINES GENERAL	
21000	Abnormal rotators (specify using the suffix)
21100	Stellar variability suspected from line-profiles
22000	Asymmetric line profile (general) (if possible rather use 22101-22299 flags or specify using the suffix)
221ZZ	Asymmetric line profile for element with atomic number ZZ (01-99) and ionisation level I (neutral); e.g., 22120: Ca I
222ZZ	Asymmetric line profile for element with atomic number ZZ (01-99) and ionisation level II
23000	Abnormal line profile (general) (if possible rather use 23101-23299 flags or specify using the suffix)
231ZZ	Abnormal line profile for element with atomic number ZZ (01-99) and ionisation level I (neutral); e.g., 23120: Ca I
232ZZ	Abnormal line profile for element with atomic number ZZ (01-99) and ionisation level II
EMISSION LINES	
24000	Suspicion that Halpha emission lines are extrinsic rather than intrinsic (e.g., from HII region in the line of sight)
241ZZ	Emission line of element with atomic number Z=ZZ (01-99) and ionisation level I (neutral); e.g., 24102: He I emission
242ZZ	Emission line of element with atomic number Z=ZZ (01-99) and ionisation level II
HALPHA LINE CHARACTERIZATION	
25000	Halpha emission profile
25500	Veiling
25510	Suspected DIBS (Diffuse Interstellar Bands)
ABSORPTION LINES CHARACTERISATION	
261ZZ	Abnormally weak lines of element with atomic number ZZ (01-99) and ionisation level I (neutral). Wavelengths can be specified using the suffix
262ZZ	Abnormally weak lines of element with atomic number ZZ (01-99) and ionisation level II. Wavelengths can be specified using the suffix
271ZZ	Enhanced line of element with atomic number ZZ (01-99) and ionisation level I (neutral); e.g., 27103: abnormally strong Li I line. Wavelengths can be specified using the suffix
272ZZ	Enhanced line of element with atomic number ZZ (01-99) and ionisation level II
28500	Abnormally strong molecular bands
28505	enhanced MgH

28510	enhanced SiH
28515	enhanced CaH
28520	enhanced TiO
28525	enhanced VO
28530	enhanced FeH
28535	enhanced ZrO
28540	enhanced LaO
28545	enhanced 12CH
28550	enhanced 13CH
28555	enhanced 12C12C
28560	enhanced 13C13C
28565	enhanced 12CN
28570	enhanced 13CN

Table 6: List of ID which identify the diffent nodes of GES in the flags

Node	ID
Arcetri	01
CAUP	02
EPINARBO	03
IAC,IACAIP	04
Lumba	05
MaxPlanck	06
MyGIsFOS	07
Nice	08
OACT	09
OAPA	10
UCM	11
ULB	12
Vilnius	13
GSSP	14
IAC	15
Liege	16
MGNDU	17
Mntp	18
ON	19
ROB	20
ROBGrid	21
BIN	22
Halpha	23
NBfilters	24
TSNE	25
UIBK	26
UNICT	27
LiegeO	28

Table 7: List of SUFFIX for the flags in the columns TECH and PECULI

Node's flag	If applicable, suffix description that complements prefix description
10005-11-03-00	See prefix description
10005-11-05-00	See prefix description
10005-11-13-00	See prefix description
10005-13-20-00	See prefix description

10010-10-01-00	See prefix description
10010-10-03-00	See prefix description
10010-10-03-01	No parameters provided: SNR < 10
10010-10-05-00	See prefix description
10010-10-09-00	See prefix description
10010-10-13-00	See prefix description
10010-11-01-00	See prefix description
10010-11-03-00	See prefix description
10010-11-05-00	See prefix description
10010-11-08-01	If Larm SNR or Uarm SNR is less than 10: SNRl < 10 or SNRu < 10
10010-11-09-00	See prefix description
10010-11-13-00	See prefix description
10010-11-13-00	See prefix description
10010-12-01-00	See prefix description
10010-12-09-00	See prefix description
10010-12-10-01	No parameters provided: SNR < 10
10010-12-10-02	No abundances
10010-13-15-00	See prefix description
10010-13-18-00	See prefix description
10010-13-20-00	See prefix description
10010-13-21-00	See prefix description
10015-10-02-01	No results for SNR < 15
10015-10-03-00	See prefix description
10015-10-03-01	Low-accuracy parameters: 10 < SNR < 15
10015-10-05-00	See prefix description
10015-10-09-00	See prefix description
10015-11-03-00	See prefix description
10015-11-05-00	See prefix description
10015-11-09-00	See prefix description
10015-11-13-00	See prefix description
10015-12-09-00	See prefix description
10015-12-10-01	Low-accuracy parameters: 10 < SNR < 15

10015-12-10-02	No abundances
10015-13-20-00	See prefix description
10020-10-01-00	See prefix description
10020-10-06-00	See prefix description
10020-10-09-00	See prefix description
10020-11-02-01	No abundances are provided for SNR < 20
10020-11-03-00	See prefix description
10020-11-05-00	See prefix description
10020-11-09-00	See prefix description
10020-11-11-00	See prefix description
10020-11-13-00	See prefix description
10020-12-01-00	See prefix description
10020-12-02-01	No abundances are provided for SNR < 20
10020-12-09-00	See prefix description
10020-12-11-00	See prefix description
10020-13-20-00	See prefix description
10025-11-02-00	See prefix description
10025-11-03-00	See prefix description
10025-11-05-00	See prefix description
10025-12-02-00	See prefix description
10025-12-09-00	See prefix description
10025-13-20-00	See prefix description
10030-10-02-01	Inaccurate results for 15 < SNR < 30
10030-10-09-00	See prefix description
10030-11-03-00	See prefix description
10030-11-09-00	See prefix description
10030-11-13-00	See prefix description
10030-12-01-00	See prefix description
10030-12-09-00	See prefix description
10040-11-05-00	See prefix description
10040-11-13-00	See prefix description
10040-12-01-00	See prefix description
10050-10-05-00	See prefix description

10050-11-01-00	See prefix description
10050-11-05-00	See prefix description
10050-11-13-00	See prefix description
10050-12-01-00	See prefix description
10050-13-16-00	See prefix description
10050-13-19-00	See prefix description
10103-11-11-00	See prefix description
10103-12-09-00	See prefix description
10103-12-11-00	See prefix description
10103-13-20-01	Suspected incorrect co-adding of exposures because of binary nature
10104-10-02-00	See prefix description
10104-10-03-00	See prefix description
10104-10-03-01	Low-accuracy parameters: bad continuum
10104-10-09-00	See prefix description
10104-12-10-01	Low-accuracy parameters: bad continuum
10104-12-10-02	No abundances
10104-13-18-00	See prefix description
10104-13-21-00	See prefix description
10104-14-25-01	Errors in normalisation at edges
10104-14-25-02	Errors in continuum placement
10105-10-03-00	See prefix description
10105-10-03-01	Low-accuracy parameters: incomplete spectrum
10105-10-09-00	See prefix description
10105-11-01-00	See prefix description
10105-11-04-01	Wavelength in the 5304-5337 region missing, therefore can not be processed using normal template database
10105-11-08-00	See prefix description
10105-11-09-00	See prefix description
10105-12-09-00	See prefix description
10105-12-10-01	Low-accuracy parameters: incomplete spectrum
10105-13-21-01	Picket-fence pattern
10105-13-21-02	Heaviside pattern
10105-13-21-03	Incorrect wavelength calibration
10106-10-09-00	See prefix description

10106-11-03-00	See prefix description
10106-11-09-00	See prefix description
10106-12-01-00	See prefix description
10106-12-09-00	See prefix description
10106-13-16-01	Picket-fence pattern
10106-13-16-02	Heaviside pattern
10106-13-18-01	Picket-fence pattern
10106-13-20-01	Picket-fence pattern
10106-13-20-02	Heaviside pattern
10106-13-21-01	Picket-fence pattern
10107-12-09-00	See prefix description
10108-10-01-00	See prefix description
10108-11-01-00	See prefix description
10108-11-08-00	See prefix description
10108-12-01-00	See prefix description
10108-13-20-00	See prefix description
10108-13-21-00	See prefix description
10110-10-01-01	Over- or under-subtracted sky features at the position of the LiI line at 6707.84 A
10110-10-03-01	Over- or under-subtracted sky features at the position of the LiI line at 6707.84 A
10110-11-01-01	Over- or under-subtracted sky features at the position of the LiI line at 6707.84 A
10110-11-03-01	Over- or under-subtracted sky features at the position of the LiI line at 6707.84 A
10110-12-01-01	Over- or under-subtracted sky features at the position of the LiI line at 6707.84 A
10110-12-10-01	Below-zero spectrum
10110-13-21-01	Below-zero spectrum
10110-14-23-01	Below-zero spectrum
10110-14-25-01	Over or under subtraction of nebular emission or sky lines
10110-14-25-02	Negative flux values
10150-14-22-00	See prefix description
10151-11-02-00	See prefix description
10151-11-02-01	Abundances of NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI are not derived if no RV is provided in at least one of the UVES arms. For Elements with atomic number > 28 abunances are derived if the RV is provided for at least one UVES arm

10151-11-04-01	No significant peak found doing own cross-correlation
10151-11-08-01	If both v_rad,l and v_rad,u are NULL
10151-12-02-00	See prefix description
10151-12-02-01	Abundances of NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI are not derived if no RV is provided in at least one of the UVES arms. For Elements with atomic number > 28 abunances are derived if the RV is provided for at least one UVES arm
10152-11-11-01	RV flagged 0 by CASU
10152-11-11-02	RV-corrected spectra is not in the rest-frame
10152-12-11-01	RV flagged 0 by CASU
10152-12-11-02	RV-corrected spectra is not in the rest-frame
10152-14-25-01	Incorrect RV estimate
10153-10-05-01	|RV_max - RV_min| > 5 * err_RV
10153-11-02-01	abs(RV_u - RV_l) > 2
10153-12-02-01	abs(RV_u - RV_l) > 2
10153-13-15-01	|RV_max - RV_min| > 4. * error_RV
10154-15-00-01	E_VRAD is greater than 10 km/s
10155-10-03-00	See prefix description
10155-11-05-00	See prefix description
10155-12-10-00	See prefix description
10200-11-02-00	See prefix description
10200-11-13-00	See prefix description
10200-12-02-00	See prefix description
10210-10-03-00	See prefix description
10210-10-05-00	See prefix description
10210-11-05-00	See prefix description
10210-12-10-00	See prefix description
10300-10-00-02	For all instances where REC_SETUP=HR21 and GES_TYPE = GE_MW. These results are less confident due to being HR21 only and not an object from the Bulge programme
10300-11-03-00	See prefix description
10300-13-16-01	HR3 missing
10300-13-18-00	See prefix description
10300-13-21-00	See prefix description
10300-15-00-01	For all instances where REC_SETUP=HR10 and GES_TYPE = GE_MW. These results are less confident due to being HR10 only

10300-15-00-02	For all instances where REC_SETUP=HR21 and GES_TYPE = GE_MW. These results are less confident due to being HR21 only and not an object from the Bulge programme
10301-13-19-01	Uncertain stellar parameters because of suspicious normalisation
10301-13-21-00	See prefix description
10302-10-03-00	See prefix description
10302-10-03-01	Parameters unchanged from the initial ones
10302-10-03-02	No convergenge reached by FAMA
10302-10-05-01	Chi-square too high
10302-10-15-01	Pipeline not able to handle the data
10302-11-02-01	No detail on non-convergency stored
10302-11-03-01	Parameters unchanged from the initial ones
10302-11-03-02	No convergenge reached by FAMA
10302-11-08-01	log(chisq) between normalised observed and synthetic exceeds defined limits: activated if logchisq > -1.5
10302-11-11-01	StePar could not converge to a feasible solution
10302-11-13-01	DAOSPEC failed to measure EWs
10302-12-02-01	No detail on non-convergency stored
10302-12-11-01	StePar could not converge to a feasible solution
10302-13-16-01	Too poor fit of spectrum
10302-13-21-01	A wrong solution was selected by the code for unexpected reasons
10302-13-21-02	Radial velocity determined by code is out of range
10303-10-03-00	See prefix description
10303-10-03-01	No parameters provided: star Teff > 9000 K
10303-10-03-02	No parameters provided: star Teff < 2800 K
10303-10-03-03	log g, [Fe/H] not provided: star Teff > 7000 K (solar [Fe/H] assumed)
10303-10-03-04	[Fe/H] not provided: star Teff < 3800 K (solar [Fe/H] assumed)
10303-10-06-00	WARNING! Missing suffix. Won't be fix
10303-10-09-01	Teff > 9000 K
10303-10-09-02	Teff < 3000 K
10303-10-09-03	Teff > 7000 K
10303-11-01-01	4000 < Teff < 6500 K
10303-11-03-01	Code convergence issue: Teff out of grid with teff < 3000 K
10303-11-03-02	Code convergence issue: Teff out of grid with teff > 7000 K
10303-11-05-01	T_eff > 7000 K

10303-11-05-02	T_eff < 3650 K
10303-11-09-01	Teff > 9000 K
10303-11-09-02	Teff < 3000 K
10303-11-09-03	Teff > 7000 K
10303-11-13-01	Hotter star than grid is able to detect suspected (Teff > 6500 K)
10303-11-13-02	Cooler star than grid is able to detect suspected (Teff < 3500 K)
10303-12-01-01	4000 < Teff < 6500 K
10303-12-09-01	Teff > 9000 K
10303-12-09-02	Teff < 3000 K
10303-12-09-03	Teff > 7000 K
10303-12-10-01	No parameters provided: star Teff > 9000 K
10303-12-10-02	No parameters provided: star Teff < 2800 K
10303-12-10-03	log g, [Fe/H] not provided: star Teff > 7000 K (solar [Fe/H] assumed)
10303-12-10-04	[Fe/H] not provided: star Teff < 3800 K (solar [Fe/H] assumed)
10303-13-15-01	Teff outside [25, 55] kK range
10303-13-16-01	Lower Teff limit of grid = 10000 K
10303-13-18-01	Teff outside [30000, 60000] K range
10303-13-19-01	Teff outside the [14000, 33000] K range
10303-13-21-01	Teff outside [6000, 55000] K range
10303-13-28-01	Teff outside [25000, 55000] K range
10303-15-00-01	WG10 parameters provided has: star Teff > 8000 K or star Teff < 2500
10303-15-00-02	WG11 parameters provided has: star Teff > 7000 K or star Teff < 2500
10304-10-03-00	See prefix description
10304-10-03-01	log g not provided: outside calibrated range [-1, 5.5]
10304-10-06-01	log g outside the range [1.5, 5]
10304-11-03-01	Code convergence issue: Logg out of grid with logg < 1
10304-11-03-02	Code convergence issue: Logg out of grid with logg > 5
10304-11-05-01	log(g) > 5.5
10304-11-05-02	log(g) < 0
10304-11-13-01	Too strong gravity for the grid (log g > 5.0)
10304-11-13-02	Too weak gravity for the grid (log g < 0.5)
10304-12-01-01	0.0 < log g < 5.0 dex
10304-12-10-01	log g not provided: outside calibrated range [-1, 5.5]
10304-13-15-01	log g outside [2.5, 4.3] dex range

10304-13-19-01	logg outside the [3.0, 4.5] range
10304-15-00-01	WG10 parameters provided has: star logg > 5.0 dex or star logg < 0.0 dex
10304-15-00-02	WG11 parameters provided has: star logg > 5.0 dex or star logg < 0.0 dex
10304-15-00-03	WG13 parameters provided has: star logg > 5.0 dex or star logg < 0.0 dex
10305-10-03-00	See prefix description
10305-10-06-00	WARNING! Missing suffix. Won't be fix
10305-11-01-01	[Fe/H] < -0.3
10305-11-03-01	Code convergence issue: [Fe/H] out of grid with FEH > 1.0
10305-11-03-02	Code convergence issue: [Fe/H] out of grid with FEH < -2
10305-11-05-01	[Fe/H] > 1
10305-11-05-02	[Fe/H] < -5
10305-12-01-01	[Fe/H] < -0.3
10305-12-09-01	[Fe/H] < 1.5 dex
10305-15-00-02	WG11 parameters provided has: star [Fe/H] > +0.5 dex or star [Fe/H] < -4.0 dex
10306-11-01-01	0.5 < xi < 2.5 km/s
10306-11-03-01	Code convergence issue: xi out of grid with xi > 2.5
10306-11-03-02	Code convergence issue: xi out of grid with xi < 0.3
10306-12-01-01	0.5 < xi < 2.5 km/s
10308-10-00-01	Parameters from IAC too close to the grid borders
10308-10-00-02	Parameters from MaxPlanck too close to the grid borders
10308-10-03-00	See prefix description
10308-10-05-01	Outside Gaia-ESO's MARCS grid
10308-11-03-00	See prefix description
10308-11-08-01	If any of Teff <= 3000 or Teff >= 7625 or logg <= 1 or logg >= 5 or mh <= -5 or mh >= 1 then flag is activated
10308-11-08-02	If 3000 < Teff < 7625, 1 < logg < 5 but: A) 0 <= mh < 1 and -0.4 > alpha or alpha > 0.4, B) -1 < mh < 0 and -0.4 > alpha or alpha > 0.8, B) -5.0 < mh <= -1.0 and 0.0 >alpha or alpha >0.8
10308-13-17-00	See prefix description
10308-13-20-01	6 kK < Teff < 12 kK; vsini < 310 km/s
10311-10-03-00	See prefix description
10311-11-03-00	See prefix description
10311-11-13-00	See prefix description
10311-12-01-01	Less than 50
10312-10-03-00	See prefix description

10312-11-01-01	Less than 3
10312-11-03-00	See prefix description
10312-11-13-00	See prefix description
10312-12-01-01	Less than 3
10315-10-02-00	See prefix description
10315-10-03-00	See prefix description
10315-11-03-00	See prefix description
10315-15-00-01	WG15 calculated XI for stars with 4000 < Teff (K) < 7000, 0 < logg < 5, and -4.5 < [Fe/H] < +1 and previously XI=NaN
10317-13-15-01	Mdot could not be determined
10317-13-15-02	Wind law parameter beta could not be determined
10317-13-21-01	Code does not handle emission lines
10318-13-15-01	Only upper Teff limit could be given
10318-13-15-02	Only lower Teff limit could be given
10319-13-15-01	Only upper logg limit could be given
10319-13-15-02	Only lower logg limit could be given
10320-10-03-00	See prefix description
10320-10-09-00	See prefix description
10320-11-03-00	See prefix description
10320-11-09-00	See prefix description
10320-12-01-00	See prefix description
10320-12-09-00	See prefix description
10320-13-16-00	See prefix description
10320-13-19-00	See prefix description
10320-13-21-00	See prefix description
10390-15-00-01	Not provided in WG10 recommended file
10390-15-00-02	Not provided in WG11 recommended file
10390-15-00-03	Not provided in WG12 recommended file
10390-15-00-04	Not provided in WG13 recommended file
10391-15-00-01	Not provided in WG10 recommended file
10391-15-00-02	Not provided in WG11 recommended file
10391-15-00-03	Not provided in WG12 recommended file
10391-15-00-04	Not provided in WG13 recommended file
10398-13-19-01	Analysis relies on setups U520 and HR14A

10398-13-19-02	Analysis relies on setups HR5A, HR6 and HR14A
10398-13-19-03	Analysis relies on setups HR6 and HR14A
10399-10-06-00	See prefix description
10399-11-03-00	See prefix description
10399-11-05-00	See prefix description
10399-13-15-00	See prefix description
10399-13-16-00	See prefix description
10399-13-18-00	See prefix description
10399-13-20-00	See prefix description
10399-13-21-00	See prefix description
10399-13-28-00	See prefix description
10400-15-00-00	See prefix description
10500-10-02-01	No reliable EW measurements which prevent the abundance analysis
10500-11-01-00	See prefix description
10500-11-03-00	See prefix description
10500-11-03-01	No EW measurements UVES upper spectrum
10500-11-03-02	No EW measurements UVES lower spectrum
10500-12-01-00	See prefix description
10500-12-10-01	No measurement possible
10602-10-01-00	See prefix description
10602-11-01-00	See prefix description
10602-12-00-01	Some measurements on the spectrum were performed but no stellar parameters were derived from this star
11020-10-03-00	See prefix description
11020-11-01-00	See prefix description
11020-11-02-00	See prefix description
11020-11-03-01	v sini > 15 km/s
11020-11-03-02	v sini > 20 km/s
11020-11-08-01	Vrot too high for analysis by Nice WG11 (vrotl/u gt 25)
11020-11-11-00	See prefix description
11020-11-13-00	See prefix description
11020-12-01-00	See prefix description
11020-12-02-00	See prefix description
11020-12-11-00	See prefix description

11050-10-09-00	See prefix description
11050-11-09-00	See prefix description
11050-12-09-00	See prefix description
11100-10-03-03	log g not provided: vsini > 110 km/s
11100-10-09-00	See prefix description
11100-11-09-00	See prefix description
11100-12-09-00	See prefix description
11100-12-10-03	log g not provided: vsini > 110 km/s
11150-10-09-00	See prefix description
11150-11-09-00	See prefix description
11150-12-09-00	See prefix description
11200-10-03-02	[Fe/H] not provided: vsini > 200 km/s (solar [Fe/H] assumed)
11200-10-09-00	See prefix description
11200-11-09-00	See prefix description
11200-12-09-00	See prefix description
11200-12-10-02	[Fe/H] not provided: vsini > 200 km/s (solar [Fe/H] assumed)
11250-10-03-00	See prefix description
11250-10-03-01	Teff not provided: vsini > 250 km/s
11250-10-09-00	See prefix description
11250-11-09-00	See prefix description
11250-12-09-00	See prefix description
11250-12-10-01	Teff not provided: vsini > 250 km/s
11300-10-09-00	See prefix description
11300-11-09-00	See prefix description
11300-12-09-00	See prefix description
12000-10-02-00	See prefix description
12000-11-13-01	O I line at 6300.3 A
12000-11-13-02	N_CN molecular bands at 6478 A
12000-12-01-00	See prefix description
12002-10-03-01	Abundances are not provided because Teff > 8000 K (No available model atmospheres)
12002-10-13-01	Teff > 7000 K
12002-10-13-02	Teff < 4000 log g > 5 or log g < 1
12002-10-13-03	log g < 1

12002-11-02-01	No MARCS model could be created
12002-11-03-01	Abundances are not provided because Teff > 8000 K (No available model atmospheres)
12002-11-11-01	Teff > 7000 K
12002-11-11-02	Teff < 4000 K
12002-11-11-03	logg < 1.0
12002-11-13-01	Teff > 7000 K or Teff < 4000
12002-11-13-02	log g > 5 or log g < 1
12002-12-02-01	No MARCS model could be created
12002-12-11-01	Teff > 7000 K
12002-12-11-02	Teff < 4000 K
12002-12-11-03	logg < 1.0
12003-10-01-01	Li abundances are not provided because log g is not available
12003-10-03-01	Abundances are not provided because log g is not available
12003-10-03-02	Li abundances are not provided because log g is not available
12003-10-13-01	Missing temperature (Teff)
12003-10-13-02	Missing gravity (log g)
12003-10-13-03	Missing metallicity ([Fe/H])
12003-10-13-04	Missing microturbulent velocity (vturb)
12003-10-13-05	All stellar parameters are missing
12003-11-01-01	Li abundances are not provided because log g is not available
12003-11-02-01	No abundances if at least one of these parameters are not provided (Teff, logg, FeH, XI)
12003-11-03-01	Abundances are not provided because log g is not available
12003-11-03-02	Li abundances are not provided because log g is not available
12003-11-11-01	Missing temperature (Teff)
12003-11-11-02	Missing gravity (log g)
12003-11-11-03	Missing metallicity ([Fe/H])
12003-11-11-04	Missing microturbulent velocity (vturb)
12003-11-11-05	All stellar parameters are missing
12003-11-13-01	Missing Teff
12003-11-13-02	Missing log g
12003-11-13-03	Missing [Fe/H]
12003-11-13-04	Missing vmic
12003-11-13-05	No abundances since all parameters are missing

12003-12-01-01	Li abundances are not provided because log g is not available
12003-12-01-02	All parameters are missing
12003-12-02-01	No abundances if at least one of these parameters are not provided (Teff, logg, FeH, XI)
12003-12-10-01	Gravity is missing
12003-12-11-01	Missing temperature (Teff)
12003-12-11-02	Missing gravity (log g)
12003-12-11-03	Missing metallicity ([Fe/H])
12003-12-11-04	Missing microturbulent velocity (vturb)
12003-12-11-05	All stellar parameters are missing
12004-10-01-00	See prefix description
12004-10-03-00	See prefix description
12004-10-03-00	See prefix description
12004-11-01-00	See prefix description
12004-11-03-00	See prefix description
12004-11-03-00	See prefix description
12004-12-01-00	See prefix description
12005-10-01-01	Li not measured because v*sin(i) > 50 km/s
12005-10-01-02	Li not measured because v*sin(i) > 100 km/s
12005-10-02-01	v*sin(i) > 50 km/s
12005-10-03-01	Abundances are not provided because v*sin(i) > 20 km/s
12005-10-03-02	Li not measured because v*sin(i) > 100 km/s
12005-11-01-01	Li not measured because v*sin(i) > 50 km/s
12005-11-02-01	No abundances are provided for v*sin(i) >= 8 km/s
12005-11-03-01	Li not measured because v*sin(i) > 50 km/s
12005-11-13-01	v*sin(i) > 10 km/s
12005-12-01-01	Li not measured because v*sin(i) > 50 km/s
12005-12-01-02	Li not measured because v*sin(i) > 100 km/s
12005-12-02-01	No abundances are provided for v*sin(i) >= 8 km/s
12005-12-10-01	20 km/s < v*sin(i) < 50 km/s
12005-12-10-02	50 km/s < v*sin(i) < 100 km/s
12005-12-10-03	100 km/s < v*sin(i) < 200 km/s
12005-12-10-04	200 km/s < v*sin(i) < 250 km/s
12005-12-10-05	250 km/s < v*sin(i) < 300 km/s

12005-12-10-06	v*sin(i) > 300 km/s
12006-10-02-01	No results for Teff < 4200 K
12006-10-02-02	No results for Teff > 6600 K
12006-10-03-01	Stellar parameters determination failed at the node level. Abundances derived with WG15 recommended parameters may be unreliable
12006-11-03-01	Stellar parameters determination failed at the node level. Abundances derived with WG15 recommended parameters may be unreliable
12007-10-05-00	See prefix description
12008-10-03-01	Low metallicity object [Fe/H] < -1.5
12008-11-02-01	ARES measures less than 50% of the lines
12008-12-02-01	ARES measures less than 50% of the lines
12009-10-01-01	LiI line at 6707.84 A not measurable in stars with Teff > 8000K
12009-10-03-01	LiI line at 6707.84 A not measurable in stars with Teff > 7500K
12009-11-01-01	LiI line at 6707.84 A not measurable in stars with Teff > 8000K
12009-11-02-01	No abundances for NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI if: TEFF <= 4500 or TEFF >= 7000 or FEH <= -2
12009-11-03-01	LiI line at 6707.84 A not measurable in stars with Teff > 7500K
12009-12-01-01	LiI line at 6707.84 A not measurable in stars with Teff > 7500K
12009-12-02-01	No abundances for NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI if: TEFF <= 4500 or TEFF >= 7000 or FEH <= -2
12009-12-10-01	Teff > 7500 K
12010-10-01-01	Li abundance not provided
12010-10-03-01	Li abundance not provided
12010-11-01-01	Li abundance not provided
12010-11-03-01	Li abundance not provided
12010-12-01-01	Li abundance not provided
12010-12-10-01	Teff or EW out of the grid
12011-10-05-01	Revised macroturbulent velocity for updated broadening parameters; homogenised value recommended
12012-10-01-01	Gravity estimated using the gamma index: assumed logg=2.5 if Teff<5400 K and gamma>0.98, and logg=4.5 otherwise
12012-10-03-01	Gravity estimated using the gamma index: assumed logg=2.5 if Teff<5400 K and gamma>0.98, and logg=4.5 otherwise
12012-12-01-01	Gravity estimated using the gamma index: assumed logg=2.5 if Teff<5400 K and gamma>0.98, and logg=4.5 otherwise
12099-10-02-01	Abundances not provided for this setup
12099-11-02-00	See prefix description
12099-11-05-00	See prefix description
12099-12-02-01	Abundances of elements are not derived from GIRAFE spectra

12106-11-02-01	EW < 15 mA for S/N < 200
12106-12-02-01	EW < 15 mA for S/N < 200
12111-11-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12111-12-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12112-11-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12112-12-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12113-11-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12113-12-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12114-11-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12114-12-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12120-11-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12120-12-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12122-11-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12122-12-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12124-11-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12124-12-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12126-11-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12126-12-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12128-11-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12128-12-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12129-11-02-01	EW < 15 mA for S/N < 200
12129-12-02-01	EW < 15 mA for S/N < 200
12130-11-02-01	EW < 15mA for S/N < 200
12130-12-02-01	EW < 15mA for S/N < 200
12138-11-02-01	EW < 15 mA for S/N < 200
12138-12-02-01	EW < 15 mA for S/N < 200
12140-11-02-01	EW < 15 mA for S/N < 200 and/or Teff > 5100 K

12140-12-02-01	EW < 15 mA for S/N < 200 and/or Teff > 5100 K
12222-11-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12222-12-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12226-11-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12226-12-02-01	No available lines due to the constraints on EWs of the spectral lines (for each spectral line an upper and lower EWs are identified)
12239-11-02-01	EW < 15 mA for S/N < 200 and/or Teff < 5100 K
12239-12-02-01	EW < 15 mA for S/N < 200 and/or Teff < 5100 K
12240-11-02-01	EW < 15 mA for S/N < 200
12240-12-02-01	EW < 15 mA for S/N < 200
12256-11-02-01	EW < 15 mA for S/N < 200
12256-12-02-01	EW < 15 mA for S/N < 200
12258-11-02-01	EW < 15 mA for S/N < 200
12258-12-02-01	EW < 15 mA for S/N < 200
12260-11-02-01	EW < 15 mA for S/N < 200
12260-12-02-01	EW < 15 mA for S/N < 200
13002-11-05-00	See prefix description
13003-11-02-00	See prefix description
13003-11-05-00	See prefix description
13003-12-02-00	See prefix description
13010-10-06-00	See prefix description
13010-11-05-00	See prefix description
13020-10-05-01	Teff outside the range [4300K, 7000K]
13020-10-09-01	Teff > 9000 K
13020-10-09-02	Teff < 3000 K
13020-10-09-03	Teff > 7000 K
13020-11-01-01	4000 < Teff < 6500 K
13020-11-04-01	Lower Teff limit (3000) of grid is reached: all results unreliable
13020-11-04-02	Upper Teff limit (8000) of grid is reached: all results unreliable
13020-11-09-01	Teff > 9000 K
13020-11-09-02	Teff < 3000 K
13020-11-09-03	Teff > 7000 K
13020-12-01-01	4000 < Teff < 6500 K

13020-12-09-01	Teff > 9000 K
13020-12-09-02	Teff < 3000 K
13020-12-09-03	Teff > 7000 K
13021-10-05-01	log g outside the range [0.0, 5.5]
13021-11-04-01	Lower logg limit (0.0) of grid is reached: all results unreliable
13021-11-04-02	Upper logg limit (5.0) of grid is reached: all results unreliable
13021-12-01-01	0.0 < log g < 5.0 dex
13021-13-21-01	Log g at -1. or +5.
13022-10-03-01	TBD
13022-10-05-01	[Fe/H] outside the range [-5.0, +0.75]
13022-10-09-01	[Fe/H] < -1.5 dex
13022-10-09-02	[Fe/H] < -2.0 dex
13022-11-01-01	[Fe/H] < -0.3
13022-11-04-01	Lower [M/H] limit (-3.0) of grid is reached: all results unreliable
13022-11-04-02	Upper [M/H] limit (1.0) of grid is reached: all results unreliable
13022-11-09-01	[Fe/H] < -1.5 dex
13022-11-09-02	[Fe/H] < -2.0 dex
13022-12-01-01	[Fe/H] < -0.3
13022-12-09-01	[Fe/H] < -1.5 dex
13022-12-09-02	[Fe/H] < -2.0 dex
13022-12-10-01	TBD
13022-13-21-01	Metallicity at -0.5 or +0.5
13023-11-01-01	0.5 < xi < 2.5 km/s
13023-12-01-01	0.5 < xi < 2.5 km/s
13027-10-03-00	See prefix description
13027-10-09-00	See prefix description
13027-11-03-00	See prefix description
13027-11-09-00	See prefix description
13027-12-09-00	See prefix description
13027-12-10-00	See prefix description
13027-13-16-00	See prefix description
13028-10-09-01	v*sin(i) > 100 km/s
13028-10-09-02	v*sin(i) > 150 km/s
13028-10-09-03	v*sin(i) > 200 km/s

<table>
<tr><td>13028-11-05-01</td><td>v*sin(i) > 20 km/s</td></tr>
<tr><td>13028-11-09-01</td><td>v*sin(i) > 100 km/s</td></tr>
<tr><td>13028-11-09-02</td><td>v*sin(i) > 150 km/s</td></tr>
<tr><td>13028-11-09-03</td><td>v*sin(i) > 200 km/s</td></tr>
<tr><td>13028-12-09-01</td><td>v*sin(i) > 100 km/s</td></tr>
<tr><td>13028-12-09-02</td><td>v*sin(i) > 150 km/s</td></tr>
<tr><td>13028-12-09-03</td><td>v*sin(i) > 200 km/s</td></tr>
<tr><td>13028-13-19-01</td><td>v*sin(i) > ~120-150 km/s makes normalisation difficult, which in turn leads to large uncertainties in stellar parameters</td></tr>
<tr><td>13029-15-00-01</td><td>Dwarf star with uncertain gravity due to determination with HR9B</td></tr>
<tr><td>13029-15-00-02</td><td>Star with uncertain parameters due to determination with HR14A or HR14B only</td></tr>
<tr><td>13029-15-00-03</td><td>Star with uncertain parameters flagged by WG11 leads</td></tr>
<tr><td>13030-10-03-01</td><td>Delta([Fe/H]_recommended - [FeH]_node) > 0.5</td></tr>
<tr><td>13030-15-00-01</td><td>For all instances where REC_SETUP is either HR10|HR21 or HR21 AND NN_TEFF=1. These results are less confident</td></tr>
<tr><td>13031-11-03-01</td><td>No abundances since |FeI - FeII| > 0.5</td></tr>
<tr><td>14001-10-02-01</td><td>20 < v*sin(i) < 50 km/s</td></tr>
<tr><td>14103-11-13-01</td><td>Peculiar EWs, sigma clipping failed to minimize high dispersion</td></tr>
<tr><td>14106-11-02-01</td><td>Dispersion (total error) of the abundance > 0.2 dex</td></tr>
<tr><td>14106-12-02-01</td><td>Dispersion (total error) of the abundance > 0.2 dex</td></tr>
<tr><td>14108-11-05-01</td><td>Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5</td></tr>
<tr><td>14111-11-02-01</td><td>Dispersion (total error) of the abundance > 0.2 dex</td></tr>
<tr><td>14111-11-05-01</td><td>Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5</td></tr>
<tr><td>14111-11-13-01</td><td>Peculiar EWs, sigma clipping failed to minimize high dispersion</td></tr>
<tr><td>14111-12-02-01</td><td>Dispersion (total error) of the abundance > 0.2 dex</td></tr>
<tr><td>14112-10-02-01</td><td>E_MG1 > 0.2 dex, probably due to Cayrel (1988) EW error estimation</td></tr>
<tr><td>14112-11-02-01</td><td>Dispersion (total error) of the abundance > 0.2 dex</td></tr>
<tr><td>14112-11-05-01</td><td>Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5</td></tr>
<tr><td>14112-11-13-01</td><td>Peculiar EWs, sigma clipping failed to minimize high dispersion</td></tr>
<tr><td>14112-11-13-02</td><td>Dispersion (total error) of the abundance > 0.2 (spectrum synthesis-based determination)</td></tr>
<tr><td>14112-12-02-01</td><td>Dispersion (total error) of the abundance > 0.2 dex</td></tr>
<tr><td>14113-10-02-01</td><td>E_AL1 > 0.2 dex, probably due to Cayrel (1988) EW error estimation</td></tr>
<tr><td>14113-11-02-01</td><td>Dispersion (total error) of the abundance > 0.2 dex</td></tr>
</table>

14113-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14113-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14113-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14114-10-02-01	E_SI1 > 0.2 dex, probably due to Cayrel (1988) EW error estimation
14114-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14114-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14114-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14114-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14120-10-02-01	E_CA1 > 0.2 dex, probably due to Cayrel (1988) EW error estimation
14120-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14120-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14120-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14120-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14121-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14121-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14122-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14122-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14122-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14122-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14123-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14123-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14124-10-02-01	E_CR1 > 0.2 dex, probably due to Cayrel (1988) EW error estimation
14124-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14124-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14124-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14124-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14125-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14125-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14126-10-02-01	E_FE1 > 0.2 dex, probably due to Cayrel (1988) EW error estimation
14126-11-02-01	Dispersion of FeI abundance > 0.35 dex
14126-11-02-02	Dispersion (total error) of the abundance > 0.2 dex

14126-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14126-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14126-12-02-01	Dispersion of FeI abundance > 0.35 dex
14126-12-02-02	Dispersion (total error) of the abundance > 0.2 dex
14127-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14127-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14128-10-02-01	E_NI1 > 0.2 dex, probably due to Cayrel (1988) EW error estimation
14128-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14128-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14128-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14128-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14129-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14129-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14129-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14129-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14130-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14130-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14130-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14138-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14138-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14140-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14140-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14140-11-13-02	Dispersion (total error) of the abundance > 0.2 (spectrum synthesis-based determination)
14140-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14214-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14214-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14220-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14220-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14221-10-02-01	E_SC2 > 0.2 dex, probably due to Cayrel (1988) EW error estimation
14221-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14221-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion

14222-10-02-01	E_TI2 > 0.2 dex, probably due to Cayrel (1988) EW error estimation
14222-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14222-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14222-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14222-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14224-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14224-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14226-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14226-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14226-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14239-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14239-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14239-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14239-11-13-02	Dispersion (total error) of the abundance > 0.2 (spectrum synthesis-based determination)
14239-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14240-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14240-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14240-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14256-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14256-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5
14256-11-13-01	Peculiar EWs, sigma clipping failed to minimize high dispersion
14256-11-13-02	Dispersion (total error) of the abundance > 0.2 (spectrum synthesis-based determination)
14256-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14257-11-13-02	Dispersion (total error) of the abundance > 0.2 (spectrum synthesis-based determination)
14258-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14258-11-13-02	Dispersion (total error) of the abundance > 0.2 (spectrum synthesis-based determination)
14258-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14259-11-13-02	Dispersion (total error) of the abundance > 0.2 (spectrum synthesis-based determination)
14260-11-02-01	Dispersion (total error) of the abundance > 0.2 dex
14260-11-05-01	Dispersion is high if the reduced chi-square sum w.r.t to the weighted average of the abundance is larger than 1.5

14260-11-13-02	Dispersion (total error) of the abundance > 0.2 (spectrum synthesis-based determination)
14260-12-02-01	Dispersion (total error) of the abundance > 0.2 dex
14263-11-13-02	Dispersion (total error) of the abundance > 0.2 (spectrum synthesis-based determination)
14906-11-13-01	Measured from C2 bands. Individual abundance measurements differ by more than 0.3 dex
14907-11-13-01	Measured from CN bands. Individual abundance measurements differ by more than 0.3 dex
15114-10-05-01	Si contaminated by telluric for HR15N setup with radial velocity -120 < RV < 120 km/s; lines at 6721.85 and 6741.63
16106-11-02-01	Not realistic [X/Fe] value
16106-12-02-01	Not realistic [X/Fe] value
16111-11-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16111-12-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16112-11-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16112-12-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16113-10-03-01	[El/Fe] > 0.8 or [El/Fe] < -0.5
16113-11-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16113-12-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16114-10-03-01	[El/Fe] > 0.8 or [El/Fe] < -0.5
16114-11-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16114-12-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16120-10-03-01	[El/Fe] > 0.8 or [El/Fe] < -0.5
16120-11-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16120-12-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16122-10-03-01	[El/Fe] > 0.8 or [El/Fe] < -0.5
16122-11-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16122-12-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16124-10-03-01	[El/Fe] > 0.8 or [El/Fe] < -0.5
16124-11-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16124-12-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI

16126-10-03-01	[El/Fe] > 0.8 or [El/Fe] < -0.5
16126-11-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16126-12-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16128-10-03-01	[El/Fe] > 0.8 or [El/Fe] < -0.5
16128-11-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16128-12-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16129-11-02-01	Not realistic [X/Fe] value
16129-12-02-01	Not realistic [X/Fe] value
16130-11-02-01	Not realistic [X/Fe] value
16130-12-02-01	Not realistic [X/Fe] value
16138-11-02-01	Not realistic [X/Fe] value
16138-12-02-01	Not realistic [X/Fe] value
16140-11-02-01	Not realistic [X/Fe] value
16140-12-02-01	Not realistic [X/Fe] value
16222-11-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16222-12-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16226-11-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16226-12-02-01	Systematic low/high [El/Fe] abundance for most of these elements: NaI, MgI, AlI, SiI, CaI, TiI, TiII, CrI, FeI, FeII, and NiI
16239-11-02-01	Not realistic [X/Fe] value
16239-12-02-01	Not realistic [X/Fe] value
16240-11-02-01	Not realistic [X/Fe] value
16240-12-02-01	Not realistic [X/Fe] value
16256-11-02-01	Not realistic [X/Fe] value
16256-12-02-01	Not realistic [X/Fe] value
16258-11-02-01	Not realistic [X/Fe] value
16258-12-02-01	Not realistic [X/Fe] value
16260-11-02-01	Not realistic [X/Fe] value
16260-12-02-01	Not realistic [X/Fe] value
17103-10-01-01	Missing metallicity and solar value is used
17103-10-01-02	Missing gravity and alternative value is used
17103-10-03-01	Missing metallicity and solar value is used

17103-10-03-02	Missing gravity and alternative value is used
17103-11-01-01	Missing metallicity and solar value is used
17103-11-03-01	Missing metallicity and solar value is used
17103-12-01-01	Missing metallicity and solar value is used
17103-12-01-02	Missing gravity and alternative value is used
17106-11-02-01	Very high or very low [X/Fe] for several lines
17106-12-02-01	Very high or very low [X/Fe] for several lines
17111-11-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17111-12-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17112-11-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17112-12-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17113-10-03-01	Abundance not provided in HR15N because Teff < 4800 K
17113-11-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17113-12-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17114-10-03-01	Abundance not provided in HR15N because Teff < 4800 K
17114-11-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17114-12-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17120-10-03-01	Abundance not provided in HR15N because Teff < 4800 K
17120-11-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17120-12-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17122-10-03-01	Abundance not provided in HR9B because Teff < 4200 K or Teff > 5800 K
17122-11-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17122-12-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17124-10-03-01	Abundance not provided in HR9B because Teff < 4200 K or Teff > 5800 K
17124-11-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17124-12-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17126-10-03-01	Abundance not provided in HR15N and HR9B because Teff < 4200 K
17126-11-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist

17126-12-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17128-10-03-01	Abundance not provided in HR15N because Teff < 4800 K
17128-11-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17128-12-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17129-11-02-01	Very high or very low [X/Fe] for several lines
17129-12-02-01	Very high or very low [X/Fe] for several lines
17130-11-02-01	Very high or very low [X/Fe] for several lines
17130-12-02-01	Very high or very low [X/Fe] for several lines
17138-11-02-01	Very high or very low [X/Fe] for several lines
17138-12-02-01	Very high or very low [X/Fe] for several lines
17140-11-02-01	Very high or very low [X/Fe] for several lines
17140-12-02-01	Very high or very low [X/Fe] for several lines
17222-11-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17222-12-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17226-11-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17226-12-02-01	Abundance is derived from a few (one or two) lines, but many lines of this element exist
17239-11-02-01	Very high or very low [X/Fe] for several line
17239-12-02-01	Very high or very low [X/Fe] for several line
17240-11-02-01	Very high or very low [X/Fe] for several lines
17240-12-02-01	Very high or very low [X/Fe] for several lines
17256-11-02-01	Very high or very low [X/Fe] for several lines
17256-12-02-01	Very high or very low [X/Fe] for several lines
17258-11-02-01	Very high or very low [X/Fe] for several lines
17258-12-02-01	Very high or very low [X/Fe] for several lines
17260-11-02-01	Very high or very low [X/Fe] for several lines
17260-12-02-01	Very high or very low [X/Fe] for several lines
18103-11-13-01	Badly fitted Li I line at 6707.9
18108-11-13-01	Badly fitted O line at 6300.3 A
20000-14-22-00	See prefix description
20005-13-19-00	See prefix description
20005-13-20-00	See prefix description

20010-10-03-00	See prefix description
20010-10-09-00	See prefix description
20010-11-09-00	See prefix description
20010-12-01-00	See prefix description
20010-12-09-00	See prefix description
20010-13-16-00	See prefix description
20010-13-21-00	See prefix description
20010-14-22-00	See prefix description
20020-10-01-00	See prefix description
20020-10-03-00	See prefix description
20020-10-09-00	See prefix description
20020-11-01-00	See prefix description
20020-11-03-00	See prefix description
20020-11-09-00	See prefix description
20020-11-11-00	See prefix description
20020-12-01-00	See prefix description
20020-12-09-00	See prefix description
20020-12-10-00	See prefix description
20020-12-11-00	See prefix description
20020-13-15-00	See prefix description
20020-13-16-00	See prefix description
20020-13-18-00	See prefix description
20020-13-19-00	See prefix description
20020-13-20-01	Double metal lines in spectrum with 1 exposure
20020-13-21-00	See prefix description
20020-14-22-00	See prefix description
20020-14-22-01	When the confidence flag is C, we do not advise to discard the object prior to any stellar parameters/abundances analysis
20020-14-25-00	See prefix description
20030-10-03-00	See prefix description
20030-10-09-00	See prefix description
20030-11-09-00	See prefix description
20030-12-01-00	See prefix description
20030-12-09-00	See prefix description

20030-14-22-00	See prefix description
20030-14-22-01	When the confidence flag is C, we do not advise to discard the object prior to any stellar parameters/abundances analysis
20040-10-09-00	See prefix description
20040-11-09-00	See prefix description
20040-12-09-00	See prefix description
20040-14-22-00	See prefix description
20040-14-22-01	When the confidence flag is C, we do not advise to discard the object prior to any stellar parameters/abundances analysis
20070-10-09-00	See prefix description
20070-11-03-00	See prefix description
20070-11-09-00	See prefix description
20070-12-09-00	See prefix description
20070-13-17-00	See prefix description
21000-12-09-00	See prefix description
21100-13-16-00	See prefix description
22000-13-16-01	Line-profile variations arising from beta Cephei-like pulsations
22000-13-19-00	See prefix description
22212-13-20-01	Strange looking structures in Mg II 4481 line with asymmetrical shape
23212-13-20-01	Strange double looking structure in Mg II 4481 line, central emission feature
23226-13-20-01	Shape of cores of Fe lines look strange, possibly filled in by emission
24000-13-16-00	See prefix description
24101-13-20-01	Emission line in central Hdelta absorption core
24101-13-20-02	Emission line in central Hbeta absorption core
24212-13-20-01	Central emission core in Mg II 4481
24220-14-25-01	Emission in the core of Ca II triplet lines
25000-10-09-01	Nebular emission - only nebular H-alpha emission component
25000-10-09-02	P-Cygni - H-alpha absorption (blue) and emission (red) component
25000-10-09-03	Emission in absorption - H-alpha absorption component is wider than the emission component
25000-10-09-04	At least one intrinsic emission component of H-alpha is found in one of the exposures of the object CNAME
25000-11-03-00	See prefix description
25000-11-09-01	Nebular emission - only nebular H-alpha emission component
25000-11-09-02	P-Cygni - H-alpha absorption (blue) and emission (red) component
25000-11-09-03	Emission in absorption - H-alpha absorption component is wider than the emission component

25000-11-09-04	At least one intrinsic emission component of H-alpha is found in one of the exposures of the object CNAME
25000-12-09-00	See prefix description
25000-12-09-01	Nebular emission - only nebular H-alpha emission component
25000-12-09-02	P-Cygni - H-alpha absorption (blue) and emission (red) component
25000-12-09-03	Emission in absorption - H-alpha absorption component is wider than the emission component
25000-12-09-04	At least one intrinsic emission component of H-alpha is found in one of the exposures of the object CNAME
25000-13-16-01	Star with circumstellar material (Be star)
25000-13-20-01	Double emission core typical of Be star
25000-14-23-01	Nebular emission - only nebular Halpha emission component
25000-14-23-02	Single component emission - one intrinsic Halpha emission component
25000-14-23-03	Single component emission - one intrinsic Halpha emission component, additional nebular emission component
25000-14-23-04	Emission blend - two blended intrinsic Halpha emission components
25000-14-23-05	Emission blend - two blended intrinsic Halpha emission components, additional nebular emission component
25000-14-23-06	Sharp emission peaks - two intrinsic Halpha emission components with peak separations of less than 50 km/s
25000-14-23-07	Sharp emission peaks - two intrinsic Halpha emission components with peak separations of less than 50 km/s, additional nebular emission component
25000-14-23-08	Double emission - two intrinsic Halpha emission components with peak separations larger than or equal to 50 km/s
25000-14-23-09	Double emission - two intrinsic Halpha emission components with peak separations larger than or equal to 50 km/s, additional nebular emission component
25000-14-23-10	P-Cygni - Halpha absorption (blue) and emission (red) component
25000-14-23-11	P-Cygni - Halpha absorption (blue) and emission (red) component, additional nebular emission component
25000-14-23-12	Inverted P-Cygni - Halpha emission (blue) and absorption (red) component
25000-14-23-13	Inverted P-Cygni - Halpha emission (blue) and absorption (red) component, additional nebular emission component
25000-14-23-14	Self Absorption - Halpha emission component is wider than the absorption component
25000-14-23-15	Self Absorption - Halpha emission component is wider than the absorption component, additional nebular emission component
25000-14-23-16	Emission in absorption - Halpha absorption component is wider than the emission component
25000-14-23-17	Emission in absorption - Halpha absorption component is wider than the emission component, additional nebular emission component
25000-14-23-18	At least one absorption component of Halpha is found in one of the exposures of the object CNAME
25000-14-23-19	At least one intrinsic emission component of Halpha is found in one of the exposures of the object CNAME

25000-14-23-20	At least one nebular emission component of Halpha is found in one of the exposures of the object CNAME
25000-14-25-01	Intrinsic emission in Halpha detected
25500-10-03-00	See prefix description
25500-10-03-01	Low-accuracy parameters: strong veiling
25500-12-09-00	See prefix description
25500-12-10-01	Low-accuracy parameters: strong veiling
25510-10-09-00	See prefix description
25510-11-09-00	See prefix description
25510-12-09-00	See prefix description
27102-13-16-01	Diagnostic lines: He I 4121, 4388, 4438, 4471, and 4713
27207-13-16-00	See prefix description
28500-11-03-00	See prefix description
28500-14-25-00	See prefix description
30020-10-06-00	See prefix description
35140-12-09-00	See prefix description
35150-12-09-00	See prefix description
35240-11-03-00	See prefix description
40000-14-23-00	See prefix description