



ESO's Revolutionary Expedition into the Ultra High Definition Universe

*Everybody is talking about Ultra High
Definition — we're delivering the
content. For free.*



After High Definition (HD) TV, Ultra High Definition has been hailed as the next revolution for TVs. This strikingly high-quality format, also known as 4K, and with four times as many pixels as HD, has been under development since 2003. It rose to prominence in 2013 and has since become standard on many high-end TV displays.





While the production of Ultra HD TV displays and cameras has flourished, very little Ultra HD content has been made universally available until now. The European Southern Observatory (ESO) — the world's most productive astronomical observatory — aims to change this, and will now deliver free Ultra HD content to all, from consumer to broadcaster.





As perhaps the first scientific organisations to deliver free Ultra HD content on a regular basis, ESO's vision transcends astronomical, geographic and scientific frontiers and delivers crisp, breathtaking Ultra HD footage — bringing the Universe closer than ever before. Astronomy is a visual science, and with four times the resolution of HD, Ultra HD adds a new dimension to our stunning footage of the cosmos.





Four world-renowned astrophotographers and ESO Photo Ambassadors equipped with the powerful Ultra HD tools of the technological front runners, embark on a revolutionary expedition that will capture ESO's three unique observing sites in Chile in all their grandeur.





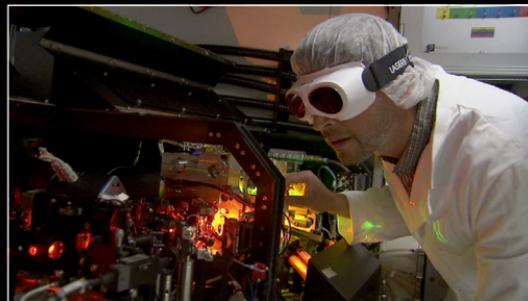
Meet our Heroes



Herbert Zodet
ESO's Video Coordinator

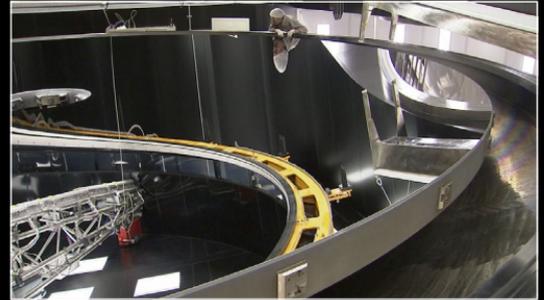
Born in heart of beer country, in Bavaria, home to ESO's Headquarters, Herbert joined ESO almost 33 years ago in 1981. A photographer by training, his first assignment was to a photographic survey project to map the southern sky. Following the introduction of video technology at ESO, Herbert transitioned from photography to videography and ever since has enjoyed documenting novel ESO activities and breathtaking scientific findings from innovative technologies at ESO. Herbert considers it a privilege to travel to ESO's sites in Chile in order to report on dedicated scientists and engineers at work and to film beneath the star-filled skies. All of this material is available within ESO's dedicated video archives for immediate viewing and high-res downloading.

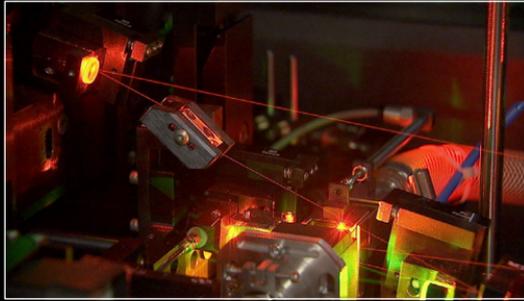
- [Herbert Zodet at ESO](#) •
- [Herbert Zodet at IMDB](#) •



Herbert Zodet Portfolio (video stills)

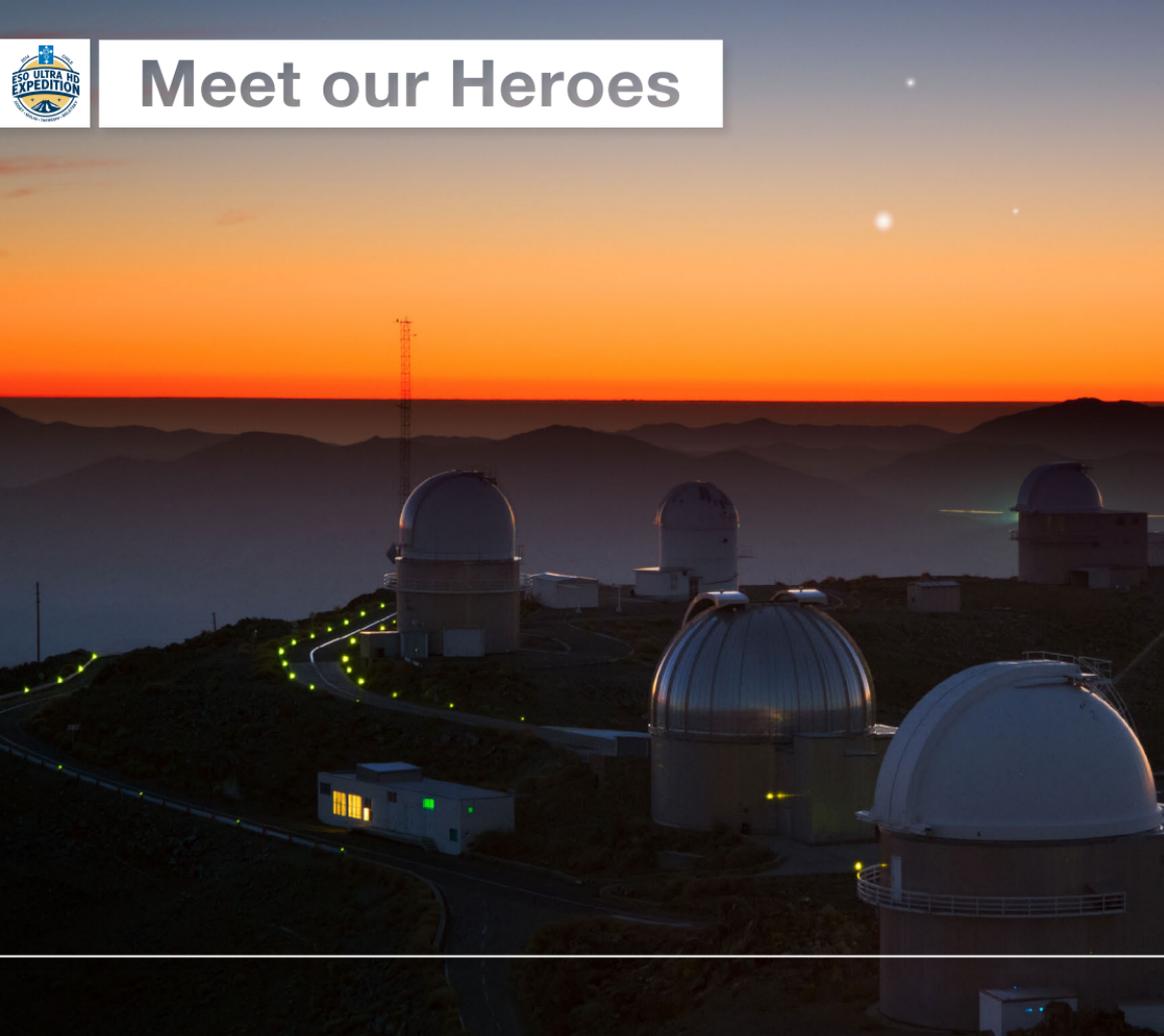








Meet our Heroes



Yuri Beletsky

ESO Photo Ambassador

Born in Belarus, Yuri now lives in Chile, where he works at Las Campanas Observatory. Previously he was an astronomer at the European Southern Observatory's sites. During his spare time, Yuri likes to set up a small equatorial mount and take wide-field panoramic images of the Milky Way and other natural phenomena. Yuri has been an enthusiastic amateur stargazer since childhood. With the rapid development of digital imaging technology, he discovered a passion for astrophotography. Images obtained by Yuri have been featured on popular websites, and in press releases, books and magazines. He continually shares his passions for astronomy and astrophotography with people around the world.

- [Yuri Beletsky at ESO](#) •
- [Yuri Beletsky Homepage](#) •









Meet our Heroes

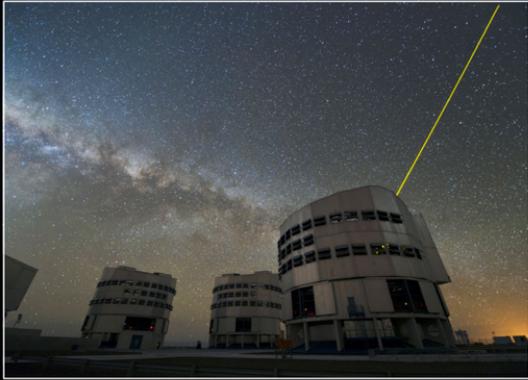


Christoph Malin
ESO Photo Ambassador

Born in 1969 in southern Germany and today based near Innsbruck, Austria, Christoph was originally a textile engineer and has worked in the fields of garment CAD/CAM system development, including laser and hydro-cutting systems. In 2010 he took up astrophotography and mountain time-lapse photography to record the clear skies and spectacular views for everyone. As a fast learner Christoph has now combined his outdoor time-lapse photography and post-processing skills with his mountaineering knowledge to create some of the finest astrophotography time-lapses from dark places throughout the Alps and other remarkable mountain and desert landscapes.

- [Christoph Malin at ESO](#) •
- [Christoph Malin Homepage](#) •









Meet our Heroes



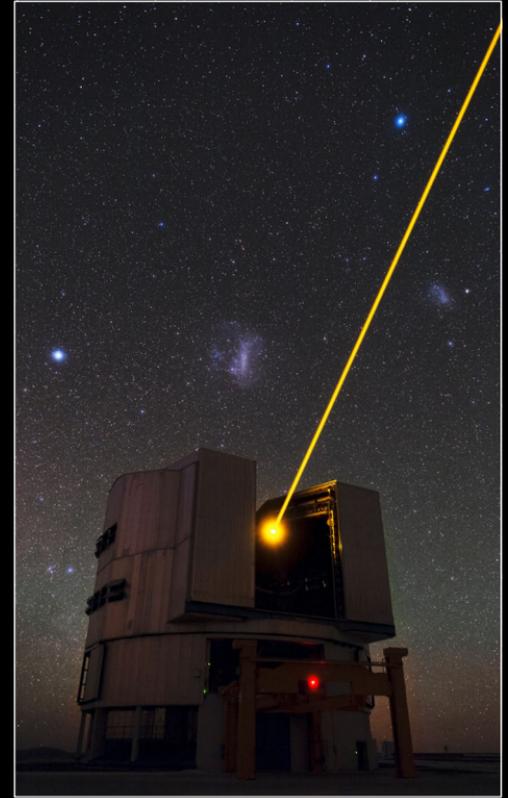
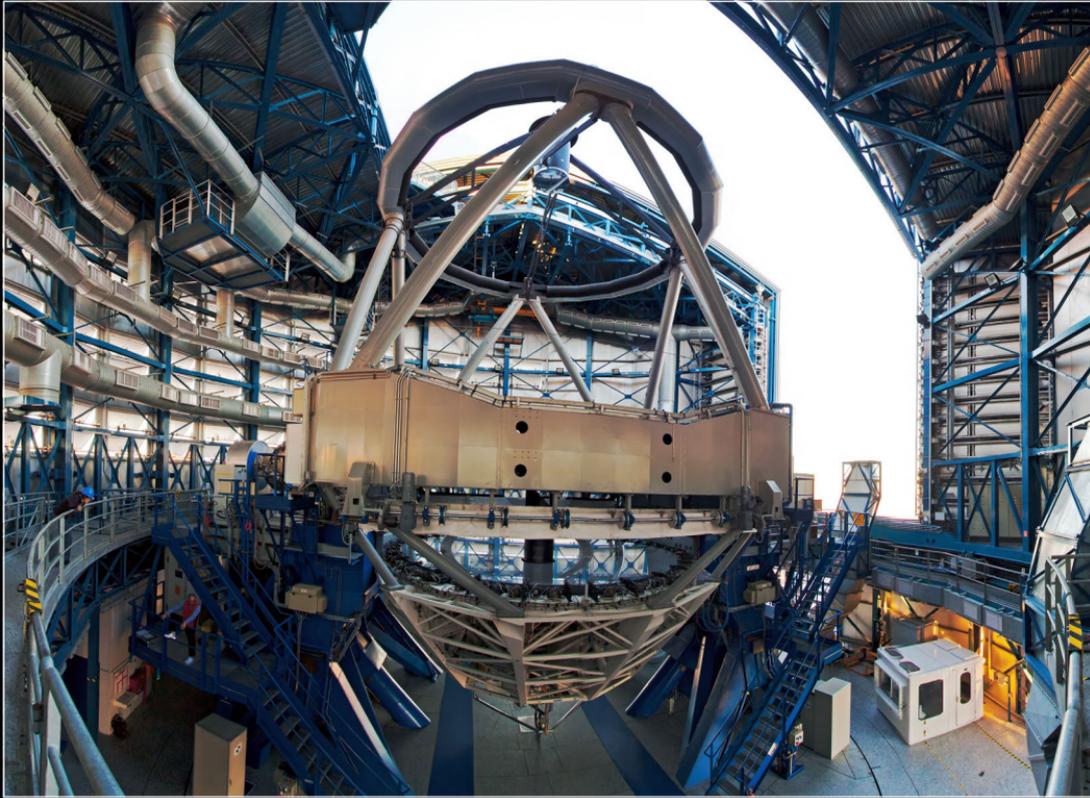
Babak Tafreshi

ESO Photo Ambassador

Born in 1978 in Iran, Babak is based in Germany, but is always on the move, and could be anywhere, from the heart of Sahara to the Himalayas or Antarctica. Babak is a science journalist, photographer and astronomy communicator working with all kinds of audiovisual media. He is the founder and director of famous The World At Night (TWAN) programme, an international project to produce and present stunning night-sky images above various Earth landscapes. Babak was editor of the Iranian astronomy magazine, Nojum, from 1997 to 2007. He has contributed to many television and radio programmes on astronomy and has interviewed world-renowned astronomers and space scientists. Besides TWAN imaging, chasing solar eclipses for an astronomy documentary series has taken him to all continents.

- Babak Tafreshi at ESO •
- Babak Tafreshi Homepage •









The journey



The ESO Ultra HD Expedition team first travels to Paranal, home to the Very Large Telescope array (VLT) — ESO's flagship facility for European ground-based astronomy. At 2635 metres above sea level, and 120 kilometres south of Antofagasta, Chile, the observatory is high above the clouds on Cerro Paranal — one of the world's finest sites for astronomy. ESO's observatory hosts the world's most advanced optical instrument, the Very Large Telescope.

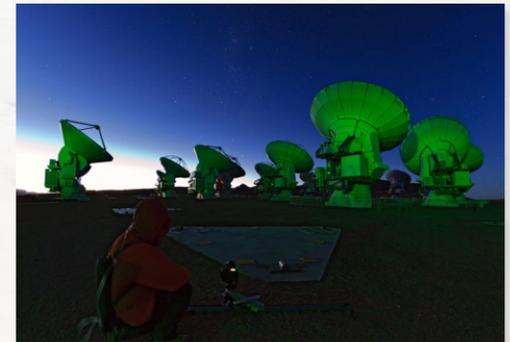




The journey



Next, they drive to ALMA, the Atacama Large Millimeter/sub-millimeter Array. ALMA is a large interferometer, and will be composed initially of 66 high-precision antennas. Located on the Chajnantor Plateau, 5000 metres above sea level in northern Chile, the individual antennas can combine to act together as a giant single telescope.





The journey

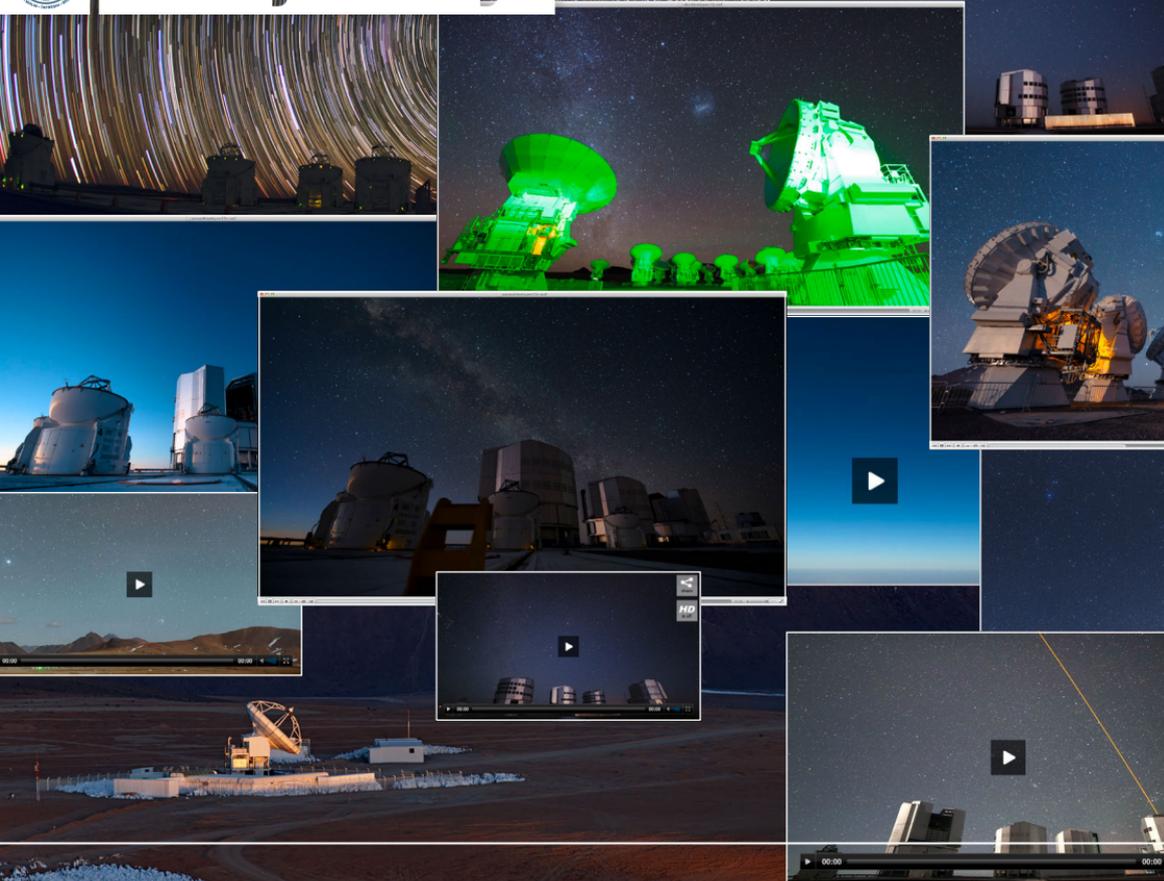


Finally, the ESO Ultra HD Expedition heads to La Silla, ESO's first observatory. Located on the edge of the Atacama Desert, it is 600 kilometres north of Santiago, and 2400 metres above sea level. La Silla is home to the ESO 3.6-metre telescope and the 3.58-metre New Technology Telescope (NTT).





The journey



The team will capture time-lapses, stills, videos, panoramas in Ultra HD and also time-lapses in planetarium fulldome format from each of the sites, taking views of the cosmos to a whole new dimension. Atmospheric conditions are so stable in the Atacama Desert, that they provide crystal-clear views of the night sky, further enhancing this visually stunning production.





Schedule



1. Beginning of expedition
24 March 2014
2. Arrival in Santiago de Chile
25 March 2014
3. Arrival at Paranal (VLT)
26 March 2014
4. Arrival at Chajnantor (ALMA)
31 March 2014
5. Travel to La Silla 4 April 2014
6. Return to Europe 8 April 2014





Equipment



1. Canon®: Canon EOS-1D C camera, Prime Lenses and additional 6D Body, batteries and other accessories
2. Kids Of All Ages: Stage One Dollies, eMotimo 2-Axis Head
3. NOVOFLEX: Tripods, Ball-Heads and other accessories
4. Angelbird: SSD2go
5. Sharp: UHD display PN-K321
6. Vixen: support with Polarie Tracking Mounts
7. eMOTIMO: support with two eMotimo 2-Axis heads
8. Peli™ Cases
9. Magic Multi Media: 4k PC workstations
10. LRTimelapse software
11. INTECRO: Batteries
12. Granite Bay Software: GBD and GBT licenses



Technology Partners

Canon

Kids of all ages



SHARP



1. Canon®
2. Kids of all ages
3. NOVOFLEX
4. Angelbird
5. Sharp
6. Vixen
7. eMotimo
8. Peli™
9. Magic Multi Media
10. LRTimelapse
11. INTECRO
12. Granite Bay Software



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