

Script for ESOcast Light 259: Witnessing the Birth of a Distant Cluster of Galaxies

ESOcast Light 259	
[Visual starts] New ESOcast intro	New ESOcast introduction
Title: Witnessing the Birth of a Distant Cluster of Galaxies	
1. Using ALMA astronomers have discovered a vast reservoir of hot gas in the still-forming galaxy cluster around the Spiderweb galaxy .	
2. The Spiderweb is located at an epoch when the universe was only 3 billion years old where detecting this gas had remained elusive , until now.	
3. The team observed tiny changes in the cosmic microwave background — the relic radiation of the Big Bang. Fast electrons in the gas change the “colour” of the cosmic microwave background revealing the presence of this hot gas .	
4. Detecting this hot gas in the early universe allows astronomers to better understand how galaxy clusters form .	

<p>5. <i>“This has firmly established that the Spiderweb is in the earliest phases to become one of the largest structures in the Universe bound together by its own gravity.”</i> Tony Mroczkowski, ESO.</p>	
<p>[Outro]</p>	<p><i>Produced by ESO, the European Southern Observatory. Reaching new heights in Astronomy.</i></p>
	<p>Also interesting:</p> <p>https://www.youtube.com/watch?v=FmBVOMELaeQ https://www.youtube.com/watch?v=ErJBXnJFq7w</p>