



<p>ESOCast Episode 19: Photographers of the Night</p>	
<p>00:00 [Visuals start]</p> <p>[Narrator]</p> <p>1. The Sun sets behind Cerro Paranal in the Chilean Atacama desert. While astronomers get ready to observe with ESO's Very Large Telescope, Nature prepares for her own grand display. As night falls over the desert, the southern sky reveals its nocturnal beauty, leaving the spectator in silent amazement. Some people, however, don't just stare at the spectacle. With great skill, they record these unique moments for everyone to see — they are the photographers of the night.</p>	<p>Images:</p> <p>Timelapse of sunset at the desert and at Paranal, sea of clouds.</p> <p>Guisard timelapses</p>
<p>00:47 ESOCast intro</p> <p>2. This is the ESOCast! Cutting-edge science and life behind the scenes at ESO, the European Southern Observatory. Exploring the ultimate frontier with our host Dr J, a.k.a. Dr Joe Liske.</p>	<p>ESOCast introduction</p>
<p>01:10 [Narrator]</p> <p>3. Welcome to the ESOCast.</p> <p>Anyone who has been up at night in a remote, high place such as at one of ESO's observatories in Chile may have been lucky enough to experience the splendid view of the myriad stars shining brightly from the heavens. It is a both a dream and a challenge for a photographer to capture an image of this incredible view. Today we will focus on three ESO staff members, who, during their free time, produce outstanding astrophotography. By publishing their results on the internet they share their enthusiasm for the astonishing wonders of the southern skies with a wider audience.</p>	<p>Slate: Episode 19: Photographers of the Night Paranal timelapses</p> <p>Introducing Yuri, Gerd and Stéphane</p>

01:56

[Narrator]

4. Yuri Beletsky is an ESO Fellow and astronomer at the Paranal Observatory.

When not observing with the world's most advanced telescope, the VLT, he actively lives out his passion for taking pictures of the southern sky.

"I like the night sky, I like stars and the night sky is so beautiful, you can see millions of stars and astrophotography is the best way to show the people what actually stars are, so taking this picture I share my passion with people and I am showing the sky then."

Over time, Yuri has produced many spectacular images of Paranal against the wonderful backdrop of the night sky.

A laser beam shooting out of one of the VLT's Unit Telescopes.

The bright constellation of the Southern Cross.

The Pipe Nebula with its picturesque dust lane crossing the Milky Way.

Sunlight reflected by small particles of dust lying in between the planets causes the faint zodiacal light.

"My plans, I would like to take more images, I like to share my passion with other people, I would like to show them the real beauty of the night sky and to show them the real beauty of the nature of Chile and the Earth."

Yuri during observations in the VLT control room

Yuri setting up his camera at the VLT platform

Yuri statement (voice over)

Night photos of Paranal

VLT and laser beam

Astrophotos of Southern Cross and Pipe Nebula

Images showing zodiacal light

Yuri statement (voice over)

Various images from Yuri

<p>04:16</p> <p>[Narrator] 5. Paranal is an ideal site for astrophotographers as it offers crystal-clear, extremely dark skies with perfect weather conditions on about 320 nights per year.</p> <p>Gerhard Hüdepohl, an electronic engineer at Paranal knows about the photographic benefits of the VLT's site.</p>	<p>Guisard Paranal timelapse</p> <p>Gerd working at VISTA</p>
<p>04:40</p> <p>[Narrator]</p> <p>6. Gerhard, who is also a renowned photographer of Chile's landscape, combines the beauty of the Atacama desert with the shining Milky Way in a unique way.</p> <p><i>"My favourite type of photography is landscape photography and in particular images of the landscape at night, showing the Milky Way in the night sky here in the Atacama desert. And here at Paranal I can have the telescopes as a nice foreground and the stars and the night sky as a background".</i></p> <p>The bright plane of our Milky Way as it arches above the VLT. An image like this can only be obtained under top-notch stargazing conditions, such as those offered at Paranal.</p> <p>Like Yuri, Gerhard has also produced a spectacular series of images showing the VLT with its laser beam and the night sky.</p> <p><i>"I am always trying to show Paranal from new, fresh points of view, different angles, different times of the day, so I am always thinking about new ideas. So that is my plan for the future".</i></p>	<p>Gerd in Residencia, checking his equipment</p> <p>Gerhard statement (voice over) Latest images, showing desert and sky</p> <p>Paranal panorama</p> <p>VLT and laser beam</p> <p>Gerhard statement (voice over) Various images from Gerhard</p>

<p>06:16 [Narrator]</p> <p>7. Astrophotography is very demanding. The photographer has to stay out in the dark and in the chill of the night for many hours. Sometimes it can take several nights of painstaking work in these tough conditions to obtain just one image and the equipment must always function flawlessly.</p> <p>Stéphane Guisard is the head of the optical group at Paranal. His astrophotography benefits from his professional expertise as an optical engineer specialising in telescopes.</p>	<p>Guisard timelapses</p> <p>Stéphane at work</p>
<p>06:52 [Narrator]</p> <p>8. Stéphane's images have been used in several projects for the International Year of Astronomy as well as in previous ESOcasts.</p> <p><i>"I take pictures of galaxies and nebulae with a telescope, but I also like to take wide-field images of the sky with a terrestrial foreground. I like to share the beauty of the sky and the Universe with people."</i></p> <p>This photographic mosaic of the central parts of our galactic home is just one example of Stéphane's work. Taken with an amateur telescope coupled to a CCD camera, the image combines about 1200 photos for a total exposure time of around 250 hours.</p> <p>Stéphane has also produced a spectacular series of timelapse sequences at the Paranal site. Producing such sequences is quite a challenge as the images must be taken at regular intervals, and all the parameters must match perfectly to obtain the sensation of the moving firmament.</p> <p><i>"I want to continue imaging galaxies and objects that I have not done yet and also I am trying to widen my field by doing 3-D pictures, a 3-D night timelapse movie and also big mosaic images of the sky".</i></p>	<p>Stéphane sets up his equipment at sunset</p> <p>Stéphane statement (voice over) Night images from Stéphane</p> <p>Famous mosaic image</p> <p>Some of Stéphane's timelapses</p> <p>Stéphane statement (voice over) Various images from Stéphane</p>

<p>08:56 [Narrator]</p> <p>9. There is no doubt that Yuri, Gerhard and Stéphane will continue to produce stunning images of the starry skies above Paranal. The wonderful quality of the images is a testament to the splendour of the night sky at ESO's Paranal Observatory. By sharing their work, these three astrophotographers have brought their magnificent view of the southern sky to a wider audience.</p> <p>This is Dr J signing off for the ESOcast. Join me again next time for another cosmic adventure.</p>	<p>Yuri, Gerhard, Stéphane. Night images and timelapses</p> <p>Night timelapse</p>
<p>09:28 [Outro]</p>	<p>ESOcast is produced by ESO, the European Southern Observatory.</p> <p><i>ESO, the European Southern Observatory, is the pre-eminent intergovernmental science and technology organisation in astronomy designing, constructing and operating the world's most advanced ground-based telescopes.</i></p>
<p>10:12 END</p>	