

# Script for ESOcast Light 219: Star Dance Around Supermassive Black Hole

<b>ESOcast Light 219</b>	
<b>[Visual starts]</b>  <b>New ESOcast intro</b>	New ESOcast introduction
<b>Title: Star Dance Around Supermassive Black Hole</b>	
1. ESO's Very Large Telescope has observed <b>a star dancing</b> around the <b>supermassive black hole</b> at the centre of the Milky Way.	
2. The observations have revealed, <b>for the first time</b> , that the <b>star's orbit is shaped like a rosette</b> and not like an ellipse.	
3. This <b>precessing movement is predicted</b> by Einstein's theory of <b>general relativity</b> ...  ...but had <b>never before</b> been observed for a star around a supermassive black hole.	
4. The star, S2, is <b>one of the closest</b> ever found <b>around the massive giant</b> , but it still takes 16 years to complete its orbit.	
5. To unravel the <b>intricacies of its orbit</b> , astronomers had to follow S2 for <b>nearly 30 years</b> , taking ever more precise measurements.	
<b>00:00</b> <b>[Outro]</b>	<i>Produced by ESO, the European Southern Observatory. Reaching new heights in Astronomy.</i>