Contribution ID: **143** Type: **Talk**

The Colliding Wind Binary Eta Carinae as seen with the H.E.S.S. telescopes

Tuesday 28 August 2018 14:35 (15 minutes)

Eta Car is a colliding-wind binary composed of a massive luminous blue variable (~100 solar masses) and a companion star of O or B-type (~ 30 solar masses). Its orbit is very eccentric and has a period of 2023 days. Although the binary has a rich observational history in, e.g. the optical regime, strong experimental evidence for gamma-ray emission from the system has built up only recently. It is now the only colliding-wind binary showing emission in very-high energy gamma rays. Following its detection in high-energy gamma-rays by the Fermi-LAT in 2009, it was detected with 11 sigma in 30 h of observation with H.E.S.S. last year. The detection was made possible due to the addition of a fifth telescope with a 28 m diameter dish to the existing four telescopes in 2012. Here we present the results of the data analysis and discuss them in the context of current models.

Primary authors: LESER, Eva (Universität Potsdam/ DESY, D-15738 Zeuthen, Germany); FUESSLING, Matthias (DESY, D-15738 Zeuthen, Germany); OHM, Stefan (DESY, D-15738 Zeuthen, Germany)

Co-authors: REIMER, Anita (Institut für Astro- und Teilchenphysik, Leopold-Franzens-Universität Innsbruck); HINTON, Jim (Max-Planck-Institut für Kernphysik, Heidelberg, Germany); EGBERTS, Kathrin (Institut für Physik und Astronomie, Universität Potsdam, Karl-Liebknecht-Strasse 24/25, D 14476 Potsdam, Germany); DE NAUROIS, Mathieu (Laboratoire Leprince-Ringuet, Ecole Polytechnique, CNRS/IN2P3, F-91128 Palaiseau, France); REIMER, Olaf (Institut für Astro- und Teilchenphysik, Leopold-Franzens-Universität Innsbruck); BORDAS, Pol (Max-Planck--Institut für Kernphysik, Heidelberg, Germany); KLEPSER, Stefan (DESY, D-15738 Zeuthen, Germany)

Presenter: LESER, Eva (Universität Potsdam/ DESY, D-15738 Zeuthen, Germany)

Session Classification: Gamma Rays

Track Classification: Gamma-rays