

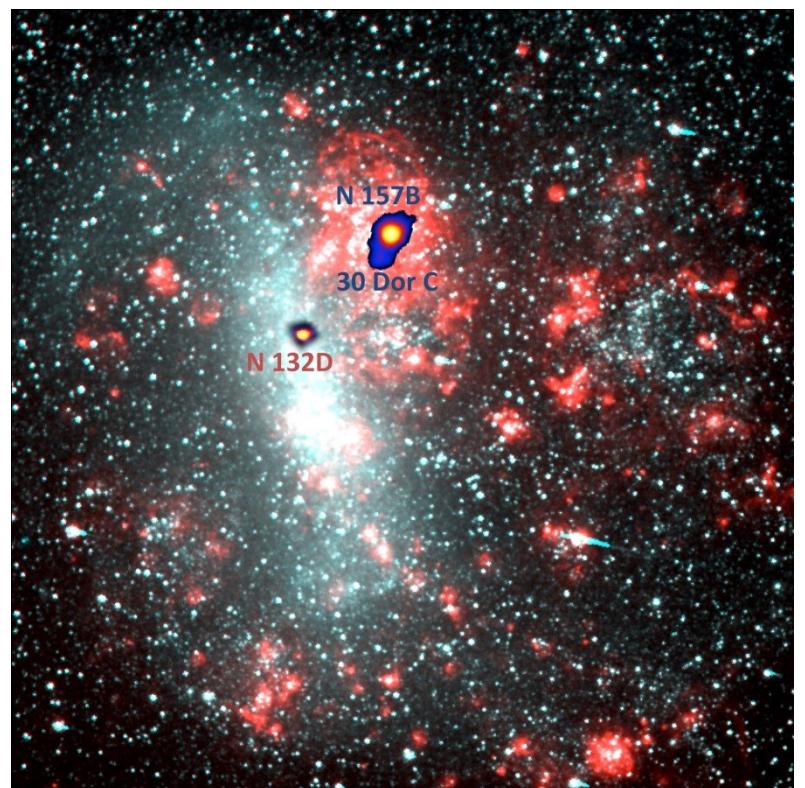


# The exceptionally powerful TeV $\gamma$ -ray emitters in the Large Magellanic Cloud.

**Stefan Ohm (DESY)**

**Tuesday, 17 February 2015, 16:45 h, Auditorium**

The Large Magellanic Cloud, a satellite galaxy of the Milky Way, has been observed with the High Energy Stereoscopic System (H.E.S.S.) above an energy of 100 billion electron volts for a deep exposure of 210 hours. Three sources of different types were detected: the pulsar wind nebula of the most energetic pulsar known, N 157B; the radio-loud supernova remnant N 132D; and the largest nonthermal x-ray shell, the superbubble 30 Dor C. The unique object SN 1987A is, unexpectedly, not detected, which constrains the theoretical framework of particle acceleration in very young supernova remnants. These detections reveal for the first time the most energetic tip of a  $\gamma$ -ray source population in an external galaxy and provide via 30 Dor C the unambiguous detection of  $\gamma$ -ray emission from a superbubble.



**Coffee, tea and cookies will be served at 16.30**

**After the seminar there is a chance for private discussions with the speaker over wine and pretzels**