Contributed Talk

Splinter AGN

Line profile variations in the changing look AGN HE 1136-2304

M. Zetzl¹, W. Kollatschny¹, M. Ochmann¹, M. Haas², N. Schartel³, M. L. Parker⁴, S. Komossa⁵, D. Grupe⁶

¹Institut für Astrophysik, Universität Göttingen ²Astronomisches Institut, RuhrUniversitt Bochum, Universittsstrae 150, 44801 Bochum, Germany

³XMM-Newton SOC, ESA, ESAC, Villafranca del Castillo, Camino Bajo del Castillo s/n, E-28692 Villanueva de la Cañada Madrid, Spain

⁴Institute of Astronomy, Madingley Road, Cambridge, CB3 0HA

⁵Max-Planck-Institut für Radioastronomie, Auf dem Hügel 69, D-53121 Bonn, Germany

⁶ Department of Earth and Space Science, Morehead State University, 235 Martindale Dr., Morehead, KY 40351, USA

In the center of active galactic nuclei (AGN) reside supermassive black holes surrounded by broad emission line regions (BLR).

The AGN HE 1136-2304 was classified as a Seyfert 1.95 galaxy by the Hamburg ESO Survey in 1993. In June 2014, the XMM-Newton slew survey found an increase in the X-ray flux by a factor of more than ten compared with the flux it had in the ROSAT all-sky survey in 1990.

An ensuing optical spectrum, taken in July 2014 with the SALT telescope, shows greatly increased broad line emission which qualified HE 1136-2304 as a Seyfert 1.5 AGN. To investigate in the BLR of this changing look AGN a optical variability campaign was carried out in the years 2014/2015. HE 1136-2304 shows a common BLR where the distance from the H β -emitting region to the ionizing source is about 10 light days.