V-263: visit Natallia Sudnik, St. Petersburg, from 13 June – 6 July 2018

We would like to thank NOVA's continued support for this visit of Dr. Natallia Sudnik, Minsk Pedagogical University, from 13 June – 6 July 2018.

We continued to work on our project to understand the rapid variability in the circumstellar optical lines of the O7.5 giant ξ Persei. Earlier we had discovered the rotation period of 2.04 days in ξ Per, by analyzing 12 years of UV spectra. This would imply that the star has a permanent (weak) magnetic field, but so far no measurement at a favorable rotational phase has been obtained. Recent attempts at TBL at the Pic-du-Midi did not succeed because of bad weather. So far this is the only O star for which a rotation period has been discovered (it took me 35 years!), which has major consequences for the explanation of a multitude of properties of O stars, which includes UV, and X-ray variability, and space photometry.

We are about to submit our paper "On the rotation period of the O giant ξ Persei: a magnetic star?" by H.F. Henrichs and N.P. Sudnik to A&A. We have much benefitted from discussions with Dr. Asif ud-Doula (Penn State University, USA), whose timely visit was also supported by NOVA. A separate report is joined.