Contribution ID: **40** Type: **Contributed Talk**

FIES@NOT: a crucial workshorse for the new era of study of Galactic massive OB stars

Thursday, 9 June 2022 10:35 (15 minutes)

IACOB is an ambitious long-term observational project which is contributing to the new era of investigation of massive stars by concentrating on Galactic OB stars. More specifically, the main scientific goal of the IACOB project is to provide a complete empirical overview of the physical properties of a statistically significant sample of OB stars. In particular, the ultimate driver of the project is that the compiled information can be used as a strong and long-lasting anchor point for our theories of stellar atmospheres, winds, interiors and evolution of massive stars.

In this endeavour, the FIES instrument operating in an incredible efficient and stable manner at the Nordic Optical Telescope, has been (and still is) a crucial workhorse. Indeed, first spectroscopic observations for the IACOB project were obtained with FIES in October 2008, and have continued routinely since then. After 14 years and more than 100 observing nights, the IACOB spectroscopic database comprises more than 3000 high-quality, multi-epoch, optical spectra of about 700 bright Galactic OB-type stars obtained with the FIES spectrograph. In addition, the scientific exploitation of this unique spectroscopic dataset has lead to more than 50 publications covering different aspects of interest for the massive star community.

In this talk I will briefly summarize some of the most important milestones reached by the IACOB project to date, the crucial impact that the availability of the FIES spectrograph has had (and still is having) in the project, and how the upcoming availability of the NTE instrument will also help us in our attempt to drive a real breakthrough in our understanding of the physical properties and evolution of high-mass stars.

Primary author: SIMON DIAZ, Sergio (Instituto de Astrofísica de Canarias)

Presenter: SIMON DIAZ, Sergio (Instituto de Astrofísica de Canarias)