

# GEMINI NEAR-INFRARED SPECTRA OF B[E] STAR CANDIDATES

Torres, Andrea F.<sup>1,2</sup>; Arias, María L.<sup>1,2</sup>; Cidale, Lydia S.<sup>1,2</sup>; Kraus, Michaela<sup>3</sup>

<sup>1</sup> *Facultad de Ciencias Astronómicas y Geofísicas, Universidad Nacional de La Plata, La Plata, Argentina*

<sup>2</sup> *Instituto de Astrofísica de La Plata (CCT La Plata - CONICET, UNLP), La Plata, Argentina*

<sup>3</sup> *Astronomický ústav, Akademie věd České Republiky, Ondřejov, Czech Republic*

**Abstract** / Among early-type peculiar stars, there are some B-type stars that present the B[e] phenomenon. These objects display complex optical spectra characterized by strong Balmer emission lines, as well as permitted and forbidden emission lines of neutral and ionized metals. Usually, the photospheric lines are masked by dense and cool circumstellar environments, which hampers a reliable determination of the stellar parameters and consequently of their evolutionary states. Thus, many B[e] stars are still unclassified or with an unprecise classification. Using infrared spectrographs at GEMINI Observatory, our research group has started an observational campaign of B[e] star candidates and poorly studied B[e] stars. A detailed identification and analysis of different near-infrared molecular and atomic spectral features lets us obtain useful information to improve the spectral classification of the observed stars and also derive the properties of their circumstellar envelopes.

*Contact* / [atorres@fcaglp.unlp.edu.ar](mailto:atorres@fcaglp.unlp.edu.ar)