

---

# Grid of models for B[e] supergiants stars

C. A. H. Condori\*<sup>†1</sup>, M. Borges Fernandes\*<sup>1</sup>, A. Domiciano De Souza\*<sup>2</sup>, A. C. Carciofi\*<sup>3</sup>, D. B Seriacop\*<sup>4</sup>, and D. M. Faes\*<sup>3</sup>

<sup>1</sup>Observatório Nacional – Rua Geral José Cristino 77, 2092-400 São Cristovão, Rio de Janeiro, RJ, Brazil

<sup>2</sup>Université Côte d’Azur – Observatoire de la Cote d’Azur – CNRS, Lagrange, Blvd de l’Observatoire, CS 34229, 06304 Nice cedex 4, France

<sup>3</sup>Instituto de Astronomia, Geofísica e Ciências Atmosféricas – Universidade de São Paulo, Rua do Matão1226, Cidade Universitaria, 05508-900 São Paulo, SP, Brazil

<sup>4</sup>Instituto de Astronomia, Geofísica e Ciências Atmosféricas – Universidade de São Paulo, Rua do Matão1226, Cidade Universitaria, 5508-900 São Paulo, SP, Brazil

## Abstract

Using the 3D Monte Carlo radiative transfer code HDUST, we are developing a grid of models for B[e] supergiants. It includes a central B star with different temperatures and luminosities, considering different mass loss rates and also a circumstellar (CS) envelope/disk composed by gas and dust. These models reproduce the spectral energy distribution from the ultraviolet to the radio/millimeter, hydrogen line profiles, and also provide images in different wavelengths that will allow us to derive interferometric measurements. This grid of models will allow the scientific exploitation of modern instruments, especially those ones from ESO VLTI (PIONIER, GRAVITY and MATISSE).

**Keywords:** radiative transfer, mass loss

---

\*Speaker

<sup>†</sup>Corresponding author: cesar@on.br