

Title: Planet formation and protoplanetary disks

Contacts:

Simon Casassus <scasassus@u.uchile.c>
Universidad de Chile

Gregory Herczeg <gherczeg1@gmail.com>
Peking University

Scientific Justification:

The topic of planet formation is undergoing a vigorous research effort worldwide, thanks to recent technological breakthroughs. The ALMA observatory is now entering full operations, and allows the detailed observation of the molecular environment of planet-forming systems, as well as an overview of protoplanetary disk evolution through their censuses at different ages. The commissioning of next-generation AO cameras opens the direct observation of forming planets in the optical/infrared (OIR).

The Kavli Institute for Astronomy and Astrophysics at Peking University offers a broad range of science interests, including a focus on star and planet formation and exoplanets. The protoplanetary disk group in Chile (the MAD, <http://madnucleus.com>), whose main host institution is Universidad de Chile, is conducting a dozen observational projects, with both ALMA and the OIR instruments, for survey work as well as resolved observations of disks at various evolutionary stages.

We invite applications for the CASSACA joint postdoctoral fellowships in the themes of planet formation. The fellow is expected to conduct research and initiate collaborations that will abridge the two centers in China and Chile, building on either on-going or new projects. Interested applications are invited to formulate specific research avenues by contacting Dr. Greg Herczeg and Dr. Simon Casassus.

Implementation:

The fellowships are offered for two years, and are renewable to a third year. Fellows are expected to spend at least one year at University of Chile and University of Peking; the third year can be taken at either institutions.

In the case of observational projects, fellows will be encouraged to apply for telescope time very early, up to 6 months before their arrival to Chile in order to be eligible for host-country time. Simultaneously, fellows will be welcome to joint on-going research efforts, either in theory or observations.