
Elisabeth A.C. Mills
PhD candidate at the University of Los Angeles-California
Physics and Astronomy Building
430 Portola Plaza, Box 951547
Los Angeles, CA 90095-1547
millsb@astro.ucla.edu

December 14, 2012

Northwestern University - CIERA
Dearborn Observatory
2131 Tech Drive, Room 3A
Evanston, IL 60208

Dear Sir or Madam:

I am applying for the Lindheimer Postdoctoral Fellowship at the Center for Interdisciplinary Exploration and Research in Astrophysics (CIERA) at Northwestern University. My curriculum vitae and a statement of my research accomplishments, interests, and plans are enclosed for your review. I would appreciate your consideration for this position, as my ongoing research projects to study the properties of Galactic center molecular clouds and my extensive radio and millimeter observing experience are an ideal match for the research environment at Northwestern University.

I am currently leading multiple research projects including the detection and characterization of a widespread, hot component of molecular gas in the Galactic center using the Green Bank telescope, and a new high-resolution survey of Galactic center gas using the Very Large Array, which will yield the first resolved temperature maps of Galactic center molecular clouds. I propose to expand on these projects by undertaking complementary surveys with the VLA and the Atacama Large Millimeter Array to study the density structure of Galactic center clouds. Together with my existing work, this will allow me to study the physical processes which cause gas conditions in the Galactic center to be different than those in the Galactic disk, and to constrain the initial conditions of Galactic center star formation. As a Lindheimer fellow, I will continue to lead independent research projects using cutting-edge, open-access facilities including the GBT, VLA and ALMA.

Sincerely,

Elisabeth Mills