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Dr. Guido Thimm
Zentrum für Astronomie der Universität Heidelberg
Mönchhofstr. 12-14
Heidelberg 69120
Germany

Dear Dr. Thimm:

I am applying for the Gliese Postdoctoral Fellowship Program at the Zentrum für Astronomie der Universität Heidelberg. My curriculum vitae, list of publications, and a research plan are enclosed for your review. I would appreciate your consideration for this job opening. My ongoing research projects to study the Galactic center and my extensive radio and millimeter observing experience are an ideal match for the research environment of the ZAH, and will allow me to collaborate on exciting projects such as modeling clouds like the Galactic center 'Brick'.

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 Gliese fellow, I will continue to lead independent research projects using cutting-edge, open-access and European facilities including the GBT, Effelsberg, VLA and ALMA.

Sincerely,

Elisabeth Mills