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Fellowship programme European Southern Observatory

To whom it may concern:

I am currently in the final stages of completing a Ph.D. in astrophysics at Trinity College Dublin, under the supervision of Prof. Graham Harper. On September 30, 2013, I submitted my thesis (Title: *Radio Interferometric Studies of Cool Evolved Stellar Winds*), and my thesis defence is due to take place on November 15, 2013. I can assure you that my experience, enthusiasm, and scientific knowledge make me a strong candidate to work in Garching as an ESO Fellow.

My Ph.D. research has focused on understanding the atmospheres of red giants and red supergiants through multi-wavelength thermal continuum and line emission studies. These stars have substantial mass-loss rates, but the mechanisms which heat and launch these outflows remain an enduring mystery. Progress in this field continues to be driven by observations, and an ESO fellowship would enable me to pursue such observations. My research interests also overlap and complement those of the stellar structure and evolution group at Garching.

I have extensive experience in reducing interferometric data at sub-millimeter, millimeter, and centimeter wavelengths, all of which have been carried out within CASA. I have also worked with data at UV and optical wavelengths. I have been a successful P.I. on proposals to use the Giant Metrewave Radio Telescope, the Combined Array for Research in Millimeter-wave Astronomy, and the Karl G. Jansky Very Large Array, and I have designed and planned all such observations. I also have a keen interest in interferometry techniques such as calibration and imaging methods.

Thank you for taking the time to consider my credentials and I look forward to hearing from you.

Eamon O'Gorman