November 30, 2009

Center for Relativistic Astrophysics
School of Physics
837 State Street
Georgia Institute of Technology
Atlanta, GA 30332-0430

To whom it may concern:

Please accept the attached application for the CRA postdoctoral fellowship advertised in the AAS Job Register. A key component of my research program focuses on better understanding feedback from active galactic nuclei (AGN). As such, I have studied, and am deeply interested in, the accretion modes which fuel supermassive black holes, the mechanisms which result in relativistic AGN jets, how AGN jets transport radiative and mechanical energy to an ambient medium, and how that energy alters an environment. The rich multiwavelength datasets currently available enable detailed study of SMBHs and AGN in such a way that existing theoretical models can be tested, and new discoveries can be made.

I feel the CRA is an excellent fit for me, and the CRA research environment will benefit from my addition. My expertise in radio and X-ray astronomy – in addition to experience with infrared, optical, and UV analysis – ideally suits me to further study accreting SMBHs using the existing and next generation of facilities/instruments (*i.e.* NuStar, Simbol-X, SOFIA, ALMA, LOFAR). I am also eager to expand my research into theoretical modeling, specifically to consolidate our understanding of radio galaxies and their environments into a unified model which describes isolated FR-Is through FR-IIs in dense clusters.

Along with this letter are my CV, a list of publications, and a brief statement of my research interests. Letters of recommendation from Megan Donahue, Brian McNamara, and Mark Voit should arrive under separate cover. Please do not hesitate to contact me if there is any further information I can provide as you review my application.

Thank you for your consideration.

Sincerely,

Dr. Kenneth W. Cavagnolo
University of Waterloo