Mass Distribution in the Central Few Parsecs of Our Galaxy

Seungkyung Oh¹, Sungsoo S. Kim¹, Donald F. Figer² and Mark Morris³

¹Kyung Hee University, ²STScl, ³UCLA

Near-IR observations of the central few parsecs of our Galaxy from the HST/NICMOS have been analyzed to produce H, K photometry. Adopting the Gemini K_{cont} and CO band observation, we distinguish evolved late-type stars from early-type stars, and use late-type stars as tracer population. We perform several statistical tests to find the best fitting parameters of stellar density distribution and velocity dispersion models. The volume number density distribution has power law index $1.55^{\sim}1.7$. We then derive the mass distribution in the Central region of our Galaxy using the Jeans equation.