

Abstract Submitted
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Measuring the Stellar Kinematics of the Compact Galaxy NGC 1270 RAINA MUSSO, Southwestern University, JONELLE WALSH, Texas AM University — NGC 1270 is a nearby elliptical galaxy that is compact with a large stellar velocity dispersion for its luminosity. We observed NGC1270 in the near-infrared with the 10 meter Keck I telescope using the integral field unit OSIRIS with adaptive optics. This project focused on measuring the stellar kinematics as a function of spatial location within the galaxy. The galaxy is rapidly rotating with velocities of 220 km/s and the galaxy has high stellar velocity dispersions ranging from 300-480 km/s. The rise in the velocity dispersion profile at the nucleus suggests this galaxy may host a very large supermassive black hole. Future work will include using these stellar kinematics to dynamically measure the black hole mass.

Steve Alexander
Southwestern University

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