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Stellar and gas kinematics in the lenticular galaxy NGC 3489
MATTHEW SIBILA, JASON PINKNEY, Ohio Northern University — We observed the $S0_3$ lenticular galaxy NGC 3489 using the B&C spectrograph on the Magellan I, 6.5-m telescope in 2001. The slit was not long enough to sample the sky spectrum without including galaxy light and so a new approach was developed for sky subtraction. We describe the approach elsewhere (see poster on NGC 7727) and report here on the findings for NGC 3489. The sky contamination in the NGC 3489 data was primarily airglow since it was observed in dark sky conditions. Our new sky subtraction method reveals that about half of the counts at the ends of the slit (R=35") are attributable to sky and the rest are galaxy. The absolute galaxy counts are greater than the other two galaxies presented here, improving the reliability of kinematics beyond 25". We measure stellar velocity dispersions significantly lower than Caon et al (2000) but consistent with the results of SAURON (Emsellem et al. 2004). Subtraction of a stellar template allows us to also measure gas kinematics in NGC 3489 from the residual [OIII] emission.

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