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# Multiple components in the center of NGC 6240 with MUSE NFM: a system with three nuclei?

Peter Weilbacher<sup>\*1</sup>, Wolfram Kollatschny , and Ana Monreal Ibero

<sup>1</sup>Leibniz-Institut für Astrophysik Potsdam – Germany

## Abstract

Based on observations with the MUSE integral field spectrograph in its narrow-field mode with high-resolution AO support, we are able to study the central 3.5 kpc of NGC 6240 at a resolution of about 35 pc in the red optical wavelength range. We detect structures of ionized gas that consist of at least two (broad) components and have LINER-like line ratios. Using absolute astrometry from the Gaia DR2 catalog we are able to locate previous observations at different wavelengths in relation to our optical detections. By comparing ionized gas, stellar features, stellar kinematics, and multi-wavelength data we try to prove the idea that NGC 6240 is a merger of three galaxies.

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<sup>\*</sup>Speaker