

## N-body simulations of P/B/X/barlens galaxies

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Recent observational[1] and theoretical studies [2] suggest that barlenses -central lens-like structures embedded in many observed bars - in fact are the face-on counterparts of boxy/peanut/X-shape structures observed in barred edge-on galaxies. Here we present our current N-body simulation modeling, based on initial galaxy models guided by the results of structural multi-component decompositions[3]carried out for the S4G survey[4].

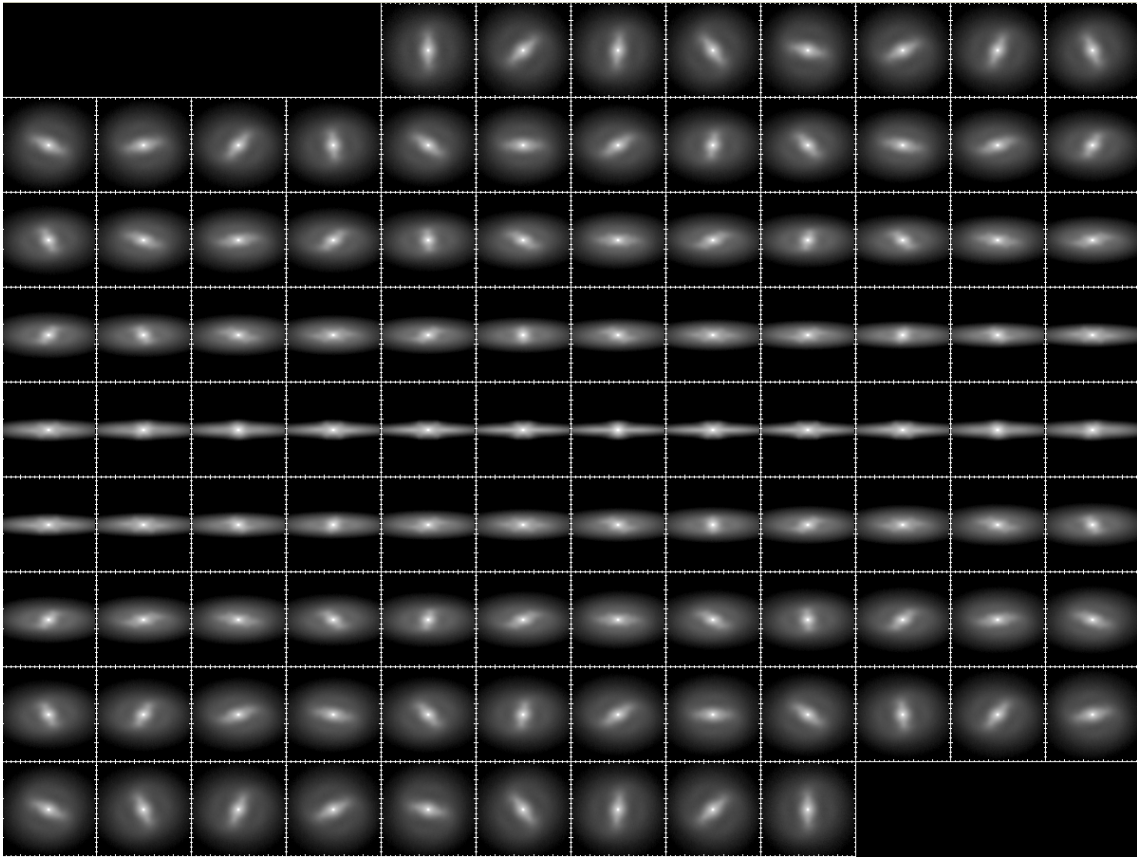


Figure 1: Synthetic images from simulated galaxies are analyzed in similar manner as observed galaxies, enabling the comparison of models and observations at all different viewing orientations.

- [1] Laurikainen, E., Salo, H., Athanassoula, E. et al. MNRAS 444, L80 (2014)
- [2] Athanassoula, E., Laurikainen, E., Salo, H., Bosma, A. MNRAS 454, 3843 (2015)
- [3] Salo, H., Laurikainen, E., Laine, J., Comeron, S. et al. ApJS 219,4 (2015)
- [4] Sheth, K, et al. (incl. Laurikainen, Salo, Laine, Comeron) PASP 122, 1397)