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# Strong lensing by galaxies with the SKA

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Strong gravitational lensing offers one of the cleanest means for measuring masses at cosmological distances. This allows to address important questions related to the efficiency of star formation in galaxies and the nature of dark matter. Optical surveys such as Euclid are expected to discover tens of thousands of galaxy-scale lenses, opening up the age of statistical strong lensing. However, the analysis of optical strong lensing data is complicated by the contamination from the foreground galaxy. Strongly lensed radio sources offer unique advantages over their optical counterparts: they have a better-defined selection function and they allow for the detection of images very close to the centre of the lens. This in turn makes it possible to make more accurate inferences, probe lower galaxy masses, and put constraints on the central black hole mass function. I will discuss the opportunities offered by the SKA for strong lensing science and the associated challenges.

## keywords

imaging, source finding, AGN, massive galaxies

## In-person or online?

in-person

## Career level

Mid-Senior

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