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Cosmic magnetism with the SKA: expectations on the study of intracluster magnetic fields - 15'

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In the next years, thanks to the advent of the SKA we expect a revolution of our knowledge about cosmic magnetism. Its precursors and pathfinders are already pushing the current limits of sensitivity and resolution and they will allow us to study large scale magnetic fields with unprecedented details. In this talk, I will present a computational tool which can produce realistic synthetic full-Stokes images that we expect to detect with the SKA1-MID. The simulated data are used as a framework to investigate how we can constrain large scale magnetic fields hosted by galaxy clusters with this next generation instrument.

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