

SPATIAL FIELD RECONSTRUCTION WITH INLA

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An introduction to spatial reconstruction using bayesian inference is presented, along with a walkthrough the integrated nested Laplace approximation (INLA) algorithm and statistical roots (Rue et al. (2009)). Recent implementations of INLA to astronomical data (González-Gaitán et al. (2018), Garcia et al. (2020)) show potential for different strategies in both data acquisition and reconstruction. The possibility of combining INLA with monte carlo radiative transfer (MCRT) methods (Baes et al. (2011)) is explored as way to improve the overall computationat cost of more detailed simulations.