

Spatial penalized empirical likelihood

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In this talk, we investigate empirical likelihood for spatial regression models. Using blocking technique, we enable inference on regression parameters without requiring knowledge of the spatial dependence structure and establish the asymptotic properties of the resulting estimator. To incorporate variable selection, we propose a penalized spatial blockwise empirical likelihood (PSBEL) method, and further show the asymptotic and oracle properties of the penalized estimator. Simulation studies are provided to support the theoretical results.