



BISP8

**Eighth Workshop on
BAYESIAN INFERENCE IN STOCHASTIC PROCESSES**

Constructing credible regions for contours and excursions

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Despite the ubiquitous use of contour plots for visualising estimated spatial fields, the uncertainty associated with such curves has been given a surprisingly small amount of attention. We'll review some existing approaches, and connect with the dual problem of estimating the uncertainty of excursion sets, leading to a more stringent formulation of the problem. For practical use in geostatistics and medical imaging, computational methods are constructed, that can be applied to Gaussian Markov random fields, and in particular be used in combination with integrated nested Laplace approximations.

**ABSTRACT
TYPE**

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Invited lecturer Finn Lindgren