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Abstract submission for the NCG Symposium 2020

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Presentation title: Improving the Functional and Stochastic Model of InSAR

Demo: no

Abstract (~100 words and optionally 1-2 figures):

InSAR estimates are depending both on the functional and the stochastic model used. Because of the large data volumes, application of these models is non-trivial. For instance, the use of a full covariance matrix for an InSAR dataset with typically 100000+ measurement points is infeasible. Furthermore, the varying locations of the measurement points (e.g., ground level, buildings, infrastructure) results in a variable sensitivity to a wide range of displacement causes. This affects the optimal functional model used on a point-by-point basis.

In our contribution, recent developments in the functional and stochastic model used for InSAR data analysis are presented. The methods are tested and evaluated on test cases in the Netherlands. The study is performed in the scope of a research project for the NAM.