

## Seminar Series in Statistics and Data Science

25.02.2020, 14:15 @ Erling Sverdrups plass, Niels H. Abels hus, 8th floor

**Haakon Bakka:** Application-driven model development in space and space-time using the INLA-SPDE approach

**Abstract:** In this talk I give an overview of my research before I came to UiO. First, I will guide you through some applications that have motivated our methodology. Then I introduce you to two powerful frameworks, INLA for fast Bayesian inference, and the SPDE approach for good mathematical model building. I will show how we used these frameworks to work on applications and methodology. Applications include ecology, landslides, and disease mapping. Methodology focuses on the Barrier models, and a new class of non-separable space-time models extending the spatial Matern fields. INLA: Integrated Nested Laplace Approximations. SPDE: Stochastic Partial Differential Equations.



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Haakon Bakka is a Post-Doctoral fellow in Statistics and Data Science at the Department of Mathematics of the University of Oslo. He received his PhD degree from the Norwegian University of Science and Technology in Trondheim, and was a Post-Doctoral fellow in Statistics at the King Abdullah University of Science and Technology (KAUST), Saudi Arabia. His research focus is on applied Bayesian statistics, often with spatial or space-time models, including priors, constructing random effects, fast inference, software development and data analysis.

Next seminar	Contact Information
03.03.2020 @ 14:15 <b>Morten Hjorth-Jensen</b>	Riccardo De Bin – <mark>debin@math.uio.no</mark>
University of Oslo & Michigan State University (USA)	Riccardo Parviero – <mark>riccarpa@math.uio.no</mark>