

Programme

Workshop on Diffusion MRI and Stochastic Geometry

Sunday 20 January

14:00-18:00 Registration

18:00 Dinner

Monday 21 January

08:00-08:50 Breakfast

08:50-09:00 Opening

09:00-12:30 Fundamentals of diffusion MRI

09:00-10:00 **Valerij G. Kiselev:** Microstructure with diffusion: to see the invisible

10:00-10:15 Coffee

10:15-11:15 **Dmitry S. Novikov:** Microstructure with diffusion: what do we see?

11:15-11:30 Break

11:30-12:00 **Denis S. Grebenkov:** Assessing surface-to-volume ratio of an anisotropic medium by diffusion NMR with general gradient encoding

12:00-12:30 **Tim Dyrby:** From structural brain connectivity to microstructural analysis: tomorrow's challenges of diffusion MRI?

12:30-14:30 Lunch break

14:30-15:00 Coffee

15:00-17:15 Fundamentals of stochastic geometry

15:00-16:00 **Christoph Thäle:** Introduction to stochastic geometry I

16:00-16:15 Break

16:15-17:15 **Christoph Thäle:** Introduction to stochastic geometry II

18:30 Dinner

20:00-20:30 Poster flash session

20:30-22:00 Poster session and reception

Tuesday 22 January

08:00-09:00 Breakfast

09:00-12:30 Stochastic geometry models

09:00-10:00 **Markus Kiderlen:** Fibre processes in stochastic geometry

10:00-10:15 Coffee

10:15-10:45 **Matthias Schulte:** Random geometric graphs

10:45-11:15 **Rasmus Waagepetersen:** A brief introduction to spatial point processes

11:15-11:30 Break

11:30-12:30 **Ute Hahn:** Simulation based testing for stochastic geometry models

12:30-14:30 Lunch break

14:30-15:00 Coffee

15:00-17:45 Tractography and connectivity

15:00-16:00 **Thomas Schultz:** Diffusion MRI tractography: methods, challenges, applications

16:00-16:30 **Michiel Cottaar:** Modelling the brain's cortical connectivity

16:30-16:45 Break

16:45-17:15 **Chantal Tax:** Investigating the geometrical structure of brain fibre pathways with diffusion MRI

17:15-17:45 **J.-Donald Tournier:** Diffusion MRI in practice

18:30 Dinner

Wednesday 23 January

08:00-09:00 Breakfast

09:00-12:15 Multidimensional diffusion MRI

09:00-10:00 **Daniel Topgaard:** Multidimensional diffusion MRI

10:00-10:30 **Evren Özarslan:** Influence of structural heterogeneity and curvilinear diffusion on MR diffusion measurements

10:30-10:45 Coffee

10:45-11:45 **Carl-Fredrik Westin:** TBA

11:45-12:15 **Hans Knutsson:** Generating optimal sets of dMRI waveforms

12:30-14:00 Lunch break

14:00-16:30 Excursion

16:30 Coffee and discussion

19:00 Conference dinner

Thursday 24 January

08:00-09:00 Breakfast

09:00-12:00 Statistics and simulation based inference

09:00-10:00 **Matt G. Hall:** Monte-Carlo simulation in diffusion MRI

10:00-10:15 Coffee

10:15-11:15 **Evgeny Spodarev:** Nonparametric statistics for infinitely divisible random fields

11:15-11:30 Break

11:30-12:00 **Anders Rønn-Nielsen:** Lévy-based modelling: tail asymptotics and excursion sets

12:00- Lunch break and departure