

Monday, June 25

8:30–10:00 **Registration** (hallway, 1st floor)
10:00–11:15 **Opening of the Conference** (hall S9)

Chair: Zbyněk Pawlas

Plenary talk

Probabilistic analysis of geometric functionals of the Boolean model and the random connection model *by Günter Last*

11:15–11:45 *Coffee Break*

11:45–12:45 **Stereology and geometric tomography** (hall S9)

Minisymposium organized by Jens Nyengaard, Chair: Markus Kiderlen

11:45–12:15 Asymptotic variance of Newton-Cotes quadratures based on randomized sampling points *by Mads Stehr*

12:15–12:45 The shape from moments problem: uniqueness and stability results *by Markus Kiderlen*

13:00–14:30 *Lunch*

14:30–16:00 **Quantitative analysis and stochastic modelling of microstructures I**
(hall S9)

Minisymposium organized by Katja Schladitz, Chair

14:30–15:00 Investigating the relationship between compaction load and the 3D microstructure of cathodes in lithium-ion batteries *by Benedikt Pflügel*

15:00–15:30 Stochastic modeling of fiber-reinforced ultra high performance concrete based on 3D image analysis *by Konstantin Hauch*

15:30–16:00 Optimisation of automatic segmentation of granular fragmented materials *by Théodore Chabardès*

14:30–15:50 **Contributed Session I** (hall S4)

Chair: Michaela Prokešová

14:30–14:50 Simulation-based quasi-likelihood estimation and its application in spatial statistics *by Felix Ballani*

14:50–15:10 Optimal estimation for the parameters of the disc process *by Petr Maha*

15:10–15:30 Stochastic reconstruction for inhomogeneous point patterns *by Jiří Dvořák*

15:30–15:50 Asymptotic normality of Horvitz-Thompson type statistics of weighted Voronoi model *by Daniela Flimmel*

16:00–16:30 *Coffee Break*

Monday, June 25

16:30–18:00	Quantitative analysis and stochastic modelling of microstructures II (hall S9) <i>Minisymposium organized by Katja Schladitz, Chair</i>	16:30–17:30	Contributed Session II (hall S4) <i>Chair: Jan Rataj</i>
16:30–17:00	Characterising the (geometric) anisotropy of foams <i>by André Liebscher</i>	16:30–16:50	Functional inequalities for marked point processes <i>by Nicolas Privault</i>
17:00–17:30	Using a random field model to investigate how the transport properties of a porous material depend on its microstructure <i>by Sandra Eriksson Barman</i>	16:50–17:10	Gaussian processes with inequality constraints: methodology, theory and applications <i>by Hassan Maatouk</i>
17:30–18:00	Validation of a decurtaining algorithm for FIB-SEM images <i>by Nikita Nobel</i>	17:10–17:30	A strong law of large numbers for partial sum processes indexed by sets with applications to point processes <i>by Oleg Klesov</i>

Tuesday, June 26

9:00–10:30	Testing in spatial statistics (hall S9) <i>Minisymposium organized by Tomáš Mrkvička</i>
9:00–9:30	On global envelopes and multiple testing <i>by Ute Hahn</i>
9:30–10:00	A one-way ANOVA test for functional data with graphical interpretation <i>by Mari Myllymäki</i>
10:00–10:30	Multivariate functional data visualization and outlier detection <i>by Wenlin Dai</i>

10:30–11:00 *Coffee Break*

11:00–12:30	Similarity measures on random sets (hall S9) <i>Minisymposium organized by Kateřina Helisová, Chair</i>	11:00–12:00	Contributed Session III (hall S4) <i>Chair: Jiří Dvořák</i>
11:00–11:30	Similarity of random sets based on convex compact approximations and envelope tests <i>by Kateřina Helisová</i>	11:00–11:20	Single particle raster image analysis of diffusion for particle mixtures <i>by Marco Longfils</i>
11:30–12:00	Similarity measures of random sets based on \mathcal{N} -distances and their applications to two-realisation problem <i>by Vesna Gotovac</i>	11:20–11:40	3D visualisation of spatially smoothed biological signal recorded on landmarks or shapes characterised by (semi)landmarks <i>by Vojtěch Šindlář</i>
12:00–12:30	Variance prediction in population size estimation <i>by Ana Gomez</i>	11:40–12:00	3D modeling of a population of particles from 2D silhouette images of two-phase flows <i>by Mathieu de Langlard</i>

Tuesday, June 26

12:40–12:50 *Group Photo*

13:00–14:30 *Lunch*

14:30–16:00 **Covariance functions and point processes on the sphere and other non-Euclidean spaces (hall S9)**

Minisymposium organized by Jesper Møller, Chair

14:30–15:00 Regularities of Gaussian fields on spheres *by Emilio Porcu*

15:00–15:30 Isotropic random fields on graphs and their edges *by Ethan Anderes*

15:30–16:00 Point process models on the sphere *by Ege Rubak*

16:00–16:30 *Coffee Break*

16:30–17:30 **Contributed Session IV (hall S9)**

Chair: Victor Patrangenaru

16:30–16:50 Smeary limit theorems and high dimensional spheres *by Stephan Huckemann*

16:50–17:10 Non-asymptotic confidence sets for extrinsic means of shapes *by Thomas Hotz*

17:10–17:30 Kalman filter on Lie groups *by Stefan Heyder*

17:45–19:00 **Poster Session + get-together (hallway, 1st floor)**

The 2D characterization of pores shape in sintered material before and after deformation *by Jacek Chrapoński*

Uniqueness of the measurement function in Crofton's formula with lines *by Rikke Eriksen*

Statistical analysis of multivariate point patterns using a case-control approach *by Kristian Bjørn Hesselund*

Statistical analysis of the microstructure-stress relationship in elastically deforming polycrystal *by Iva Karafiátová*

Residual analysis for inhomogeneous shot-noise Cox processes *by Michaela Prokešová*

Quantitative evaluation of pores arrangement in sintered metallic material using systematic scanning and variance analysis *by Stanisław Roskosz*

The reconstruction of r -regular objects from images with or without noise *by Helene Svane*

A new definition of random sets *by Irina Volchenkova*

Wednesday, June 27

9:00–10:00 **Plenary talk** (hall S9)
Phase transition for Gibbs point processes *by David Dereudre*

10:00–10:30 *Coffee Break*

10:30–11:30 **Contributed Session V** (hall S9)
Chair: Jiří Janáček

10:30–10:50 Purkinje cells degeneration is accompanied with a smaller number of microvessels and higher response to stress *by Yaroslav Kolinko*

10:50–11:10 Geometrical properties of a skeletal structure of radiolarian *Didymocyrtis tetrathalamus* (Haeckel) *by Takashi Yoshino*

11:10–11:30 Connective tissue in porcine liver: differences in its distribution and sampling recommendations *by Patrik Mik*

11:30–13:00 *Lunch*

14:00–20:00 *Excursion*

Thursday, June 28

9:00–10:30 **New methods and applications in shape analysis** (hall S9)
Minisymposium organized by Stephan Huckemann, Chair

9:00–9:30 Shape analysis for anisotropic fingerprint growth *by Karla Markert*

9:30–10:00 Regression modelling for the size-and-shape of 2 and 3 dimensional objects *by Alfred Kume*

10:00–10:30 Nonparametric extrinsic regression and anti-regression on projective shape manifolds *by Victor Patrangenaru*

10:30–11:00 *Coffee Break*

Thursday, June 28

11:00–12:20 **Contributed Session VI** (hall S9)

Chair: Mari Myllymäki

- 11:00–11:20 Point processes on directed linear networks *by Jakob Gulddahl Rasmussen*
- 11:20–11:40 Pair correlation functions and limiting distributions of iterated cluster point processes *by Andreas Dyreborg Christoffersen*
- 11:40–12:00 Structured space-sphere point processes and K -functions *by Heidi Sogaard Christensen*
- 12:00–12:20 Refinements of the global envelope tests, with application on the General linear model of neuroimage data *by Tomáš Mrkvička*

11:00–12:20 **Contributed Session VII** (hall S4)

Chair: Karl-Anton Dorph-Petersen

- 11:00–11:20 Stereological methods applied to leaf tissues, cells and organelles *by Lucie Kubínová*
- 11:20–11:40 Design unbiased population size estimation with gigapixel images *by Marcos Cruz*
- 11:40–12:00 Variance of isotropic systematic sampling on set with finite perimeter *by Jiří Janáček*
- 12:00–12:20 Random measurable sets and their multicovariances *by Jan Rataj*

13:00–14:30 *Lunch*

14:30–16:00 **Modeling of polycrystalline materials and applications** (hall S9)

Minisymposium organized by Volker Schmidt, Chair

- 14:30–15:00 The Random marked tessellations from microstructures obtained by 3D EBSD *by Jaromír Kopeček*
- 15:00–15:30 Reconstruction of grains in polycrystalline materials from incomplete data using Laguerre tessellations *by Lukas Petrich*
- 15:30–16:00 Modelling and simulation of 3D random tessellations with geometrical interactions and an application to polycrystalline materials *by Filip Seidl*

16:00–16:30 *Coffee Break*

16:30–18:00 **Random sets tessellating the space** (hall S9)

Minisymposium organized by Viktor Beneš, Chair

- 16:30–17:00 Stochastic grain models in 3D, based on the typical cell of stationary random tessellations *by Orkun Furat*
- 17:00–17:30 Modeling and estimation for random marked tessellations *by Zbyněk Pawlas*
- 17:30–18:00 Estimation of geodesic tortuosity and constrictivity in stationary random closed sets *by Matthias Neumann*

19:00 **Conference dinner**

Friday, June 29

9:45–10:45 **Contributed Session VIII** (hall S9)

Chair: Felix Ballani

9:45–10:05 Spatial patterning of posttraumatic stress, depressive and sleep disturbance symptoms trajectories following the 2001 World Trade Center disaster in New York City
by Katarzyna Wyka

10:05–10:25 Modeling techniques for the exploration and visualization of space-time processes with complex structures *by Dana Sylvan*

10:25–10:45 Tortuosimetric descriptor for complex porous media characterization *by Johan Chaniot*

11:00–11:30 *Coffee Break*

11:30–12:30 **Plenary talk – Closing lecture** (hall S9)

Neurostereology in psychiatry *by Karl-Anton Dorph-Petersen*

13:00 *Lunch*
