

Curriculum Vitae, August 2021

Henrike Häbel

PERSONAL INFORMATION

Address Karolinska Institutet (IMM) *Nationality:* German
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RESEARCH INTEREST

Biostatistics, statistical epidemiology, spatial and spatio-temporal statistics with a focus on spatial point processes with applications in material science, medicine and forestry, image analysis (microscopy and remote sensing).

DEGREES AND EDUCATION

Ph.D. in Mathematical Statistics
Chalmers University of Technology and University of Gothenburg
Gothenburg, Sweden **June 2017**

Title: From Experiments with Images to 3D Models
Advisors: Aila Särkkä (main), Mats Rudemo, Tuomas Rajala and Matias Nordin

Ph.Lic. in Mathematical Statistics
Chalmers University of Technology and University of Gothenburg
Gothenburg, Sweden **April 2015**

Pan-American Advanced Study Institute on Spatio-Temporal Statistics
Búzios, Brazil **Juni 2014**

Summer School on Topics in Space-Time Modeling and Inference
Aalborg, Danmark **May 2013**

Winter Conference in Statistics 2013 Compressed Sensing
Borgafjäll, Sweden **March 2013**

M.Sc. in Econo-Mathematics
Ulm University, Ulm, Germany **September 2012**

Master program in Mathematical Sciences
University of Gothenburg, Gothenburg, Sweden **Aug. 2011 - July 2012**

B.Sc. in Econo-Mathematics
Ulm University, Ulm, Germany **September 2012**

Bilingual Abitur (A-level general qualification for university entrance)
Albertus Magnus Gymnasium Bensberg, Bergisch Gladbach, Germany **Juni 2007**

POSITIONS

Karolinska Institutet
Institute of Environmental Medicine, Stockholm, Sweden
Statistician **Nov. 2018 - present**

Natural Resources Institute Finland (Luke)
Helsinki, Finland
Postdoc **Oct. 2017 - Oct. 2018**

PROFESSIONAL
EXPERIENCE
AND
INTERNSHIPS

Swedish University of Agricultural Science

Umeå, Sweden
Research visits

Oct. - Nov. 2017, Apr. 2018

University Federico Santa Maria and University of Valparaíso

Valparaíso, Chile
Research visit

March 2017

Stanford University, Department of Geophysics

Stanford, USA
Research visit

March 2016

Fraunhofer Institute for Industrial Mathematics ITWM

Kaiserslautern, Germany
Research visit

July - Aug. 2015

Center for Applied Mathematics and Statistics

Gothenburg, Sweden
Statistical consultancy

Okt. 2012 - Apr. 2014

Boehringer Ingelheim GmbH & Co. KG, Biostatistics

Biostatistics, Biberach, Germany
Research assistant
Internship

Mar. - Aug. 2011

Aug. - Oct. 2010

GRANTS AND
AWARDS

- Cramér prize for best thesis issued by the Cramér society, Sweden, 2018
- Travel grant issued by Bo Rydins Foundation for scientific research, Sweden, 2017
- Research grant issued by Adlerbertska forskningsstiftelsen, Sweden, 2013 - 2017
- Travel grant issued by Stiftelsen Wilhelm och Martina Lundgrens vetenskapsfond, Sweden, 2016
- Travel grant issued by Mats Esséns Minnesfond, Sweden, 2016
- Travel grant issued by Chalmers Research Fund 2015, Sweden, 2015
- Travel grant issued by the Nordic Network on Statistical Approaches to Regional Climate Models for Adaptation (SARMA), Norway, 2014
- Travel grant issued by Letterstedtska Föreningen - Nordisk Tidskrift, Sweden, 2013
- Hans Elias bursary issued by the International Society for Stereology in connection to the 11th European Congress of Stereology (ECS) 2013, Germany, 2013
- Scholarship for studies and further education abroad (Free Mover) issued by Ulm University, Germany, 2011

EVALUATIVE
WORK

- Evaluator of Ph.D. thesis Spatio-temporal methods for the analysis of crime and traffic safety data by Briz Redón, Á (2020). <https://hdl.handle.net/10550/75234>.
- Peer review for BMC Medical Research Methodology, Forest Ecosystems, Stochastic Environmental Research and Risk Assessment, and Journal of Statistical Computation and Simulation.
- Ph.D. representative for work environment (2012 - 2017) and chair of the Ph.D. council board (2016 - 2017) at Chalmers University of Technology and University of Gothenburg, Gothenburg, Sweden.

PUBLICATIONS

Peer reviewed scientific articles

- Littmann, K., Hagström, E., **Häbel, H.**, Bottai, M., Eriksson, M. and Parini, P. and Brinck, J. (2021). Plasma lipoprotein(a) measured in the routine clinical care is associated to atherosclerotic cardiovascular disease during a 14-year follow-up. *European Journal of Preventive Cardiology*: 1-10. doi:10.1093/eurjpc/zwab016
- Gahrton, C., Håkansson, A., Kåberg, M., Jerkeman, A., **Häbel, H.**, Dalgard, O., Duberg, A.-S., Aleman, S. (2021). Mortality among amphetamine users with hepatitis C virus infection: A nationwide study. *PloS one*, 16 (6): 1-15. doi:10.1371/journal.pone.0253710
- Gudmundsdottir, K.K., Fredriksson, T., Svennberg, E., Al-Khalili, F., Friberg, L., **Häbel, H.**, Frykman, V., Engdahl, J. (2021). Performance of pulse palpation compared to one-lead ECG in atrial fibrillation screening. *Clinical cardiology*, 44 (5): 692-698. doi:10.1002/clc.23595
- **Häbel, H.**, Wettermark, B., Hägg, D., Reginald Villacorta, R., Wennerström, E.C.M., M. Linder (2021). Societal impact for patients with psoriasis: A nationwide Swedish register study. *JAAD International*, 3: 63-75. doi:10.1016/j.jdin.2021.02.003
- **Häbel, H.**, Balazs, A., Myllymäki, M. (2021). Spatial analysis of airborne laser scanning point clouds for predicting forest structure. *Mathematical and Computational Forestry & Natural Resource Sciences*, 13 (1): 15-28.
- Tan, E.C.K., Lexomboon, D., **Häbel, H.**, Fastbom, J., Eriksdotter, M. Johnell, K., Sandborgh-Englund, G. (2021). Validating a model for medication-related dental outcomes in older people. *Oral Diseases*: 1-8. doi:10.1111/odi.13864
- Ohm, J., Skoglund, P.H., **Häbel, H.**, Sundström, J., Hambraeus, K., Jernberg, T., Svensson, P. (2021). Association of socioeconomic status with risk factor target achievements and use of secondary prevention after myocardial infarction . *JAMA network open*, 4 (3): e211129. doi:10.1001/jamanetworkopen.2021.1129
- Åkerstedt, T., Klemets, T., Karlsson, D., **Häbel, H.**, Widman, L., Sallinen, M. (2021). Acute and cumulative effects of scheduling on aircrew fatigue in ultra-short-haul operations. *Journal of Sleep Research*: e13305. doi:10.1111/jsr.13305
- Svensson, P., Hofmann, R., **Häbel, H.**, Jernberg, T., Nordberg, P. (2021). Association between cardiometabolic disease and severe COVID-19: a nationwide case-control study of patients requiring invasive mechanical ventilation. *BMJ open*, 11(2): e044486. doi:10.1136/bmjopen-2020-044486
- Brunes, M., Johannesson, U., **Häbel, H.**, Westergren Söderberg, M. Ek, M.(2021). Effects of obesity on peri-and postoperative outcomes in patients undergoing robotic versus conventional hysterectomy. *Journal of minimally invasive gynecology*, 28 (2): 228-236. doi:10.1016/j.jmig.2020.04.038
- Krakowski, I., Bottai, M., **Häbel, H.**, Masucci, G., Girnita, A., Smedby, K.E., Eriksson, H. (2021). Impact of modern systemic therapies and clinical markers on treatment outcome for metastatic melanoma in a real-world setting. *Journal of the European Academy of Dermatology and Venereology*, 35 (1): 105-115. doi:10.1111/jdv.16678
- Wahrenberg, A., Magnusson, P., Kuja-Halkola, R., **Häbel, H.**, Hambraeus, K., Jernberg, T., Svensson, P. (2020). Cardiovascular family history increases the risk of disease recurrence after a first myocardial infarction. *European Heart Journal*, 41, (Supplement 2). doi:10.1093/ehjci/ehaa946.2979

- Ohm, J., Skoglund, P.H., **Häbel, H.**, Sundström, J., Hambræus, K., Jernberg, T., Svensson, P. (2020). Socioeconomic status, secondary prevention activities during the first year after a myocardial infarction and target attainments. *European Heart Journal*, 41, (Supplement_2). doi:10.1093/ehjci/ehaa946.2955
- Brunet, M., **Häbel, H.**, Altman, D., Ek, M. (2020). Risk-factors for continuous long-term use of prescription opioid drugs 3 years after hysterectomy: A nationwide cohort study. *Acta obstetrica et gynecologica Scandinavica*, 99 (8): 1057-1063. doi:10.1111/aogs.13826
- Tan, E.C.K., Lexomboon, D., **Häbel, H.**, Fastbom, J., Eriksdotter, M. Johnell, K., Sandborgh-Englund, G. (2020). Xerogenic medications as a predictor for dental health intervention in people with dementia. *Journal of Alzheimer's Disease*, 75 (4): 1263-1271. doi:10.3233/JAD-200148
- Albadri, Z., Thorslund, K., **Häbel, H.**, Seifert, O., Gronhagen, C. (2020). Increased Risk of Squamous Cell Carcinoma of the Skin and Lymphoma Among 5,739 Patients with Bullous Pemphigoid: A Swedish Nationwide Cohort Study. *Acta Dermato-Venereologica*, 100: adv00289. doi:10.2340/00015555-3622
- Oras, P., **Häbel, H.**, Skoglund, P.H., Svensson, P. (2020). Elevated Blood Pressure in the Emergency Department: A Risk Factor for Incident Cardiovascular Disease. *Hypertension*, 75 (1): 229-236. doi:10.1161/HYPERTENSIONAHA.119.14002
- Åkerstedt, T., Discacciati, A., **Häbel, H.**, Westerlund, H. (2019). Psychosocial work demands and physical workload decrease with ageing in blue-collar and white-collar workers: a prospective study based on the SLOSH cohort. *BMJ open*, 9:e030918. doi:10.1136/bmjopen-2019-030918
- **Häbel, H.**, Kuronen, M., Henttonen H.M., Kangas, A., Myllymäki, M. (2019). The effect of spatial structure of forests on the precision and costs of plot-level forest resource estimation. *Forest Ecosystems*, 6:8. doi:10.1186/s40663-019-0167-1
- **Häbel, H.**, Myllymäki, M., Pommerening, A. (2019). New insights on the behaviour of alternative types of individual-based tree models for natural forests. *Ecological modelling*, 406: 23-32 . doi:10.1016/j.ecolmodel.2019.02.013
- **Häbel, H.**, Särkkä, A., Rudemo, M., Hamngren Blomqvist, C., Olsson, E., and Nordin, M. (2019). Colloidal particle aggregation in three dimensions. *Journal of Microscopy*, 275 (3):149-158. doi:10.1111/jmi.12823.
- **Häbel, H.**, Rajala, T., Boissier, C., Marucci, M., Schladitz, K., Redenbach, C., and Särkkä, A. (2017). A three-dimensional anisotropic point process characterization for pharmaceutical coatings. *Spatial Statistics*, 22: 306-320. doi:10.1016/j.spasta.2017.05.003
- **Häbel, H.**, Andersson, H., Olsson, A., Olsson, E., Larsson, A., and Särkkä, A. (2016). Characterization of pore structure of polymer blended films used for controlled drug release. *Journal of Controlled Release*, 222: 151-158. doi:10.1016/j.jconrel.2015.12.011.
- Andersson, H., **Häbel, H.**, Olsson, A., Olsson, S., von Corswant, C., Hjærtstam J., Persson M., Stading M., and Larsson, A. (2016). The influence of the molecular weight of the water-soluble polymer on phase-separated films for controlled release. *International Journal of Pharmaceutics*, 511 (1):223-235. doi:10.1016/j.ijpharm.2016.06.058.
- Karimi, M., Hedner, J., **Häbel, H.**, Nerman, O., and Grote, L. (2016). A sleep apnea related excess risk of motor vehicle accidents in the Swedish Traffic Accident Registry is reduced by CPAP - a retrospective cohort study. *Sleep*, 38 (3), 341-349. doi:10.5665/sleep.4486.

- **Häbel, H.**, Särkkä, A., Rudemo, M., Hamngren Blomqvist, C., Olsson, E., Abrahamsson, C., and Nordin, M. (2016). From static micrographs to particle aggregation dynamics in three dimensions. *Journal of Microscopy*, 262 (1):102-11. doi:10.1111/jmi.12349.
- Nordin, M., Abrahamsson, C., Hamngren Blomqvist, C., **Häbel, H.**, Röding, M., Olsson, E., Nydén, and M., Rudemo, M. (2014). Estimation of mass thickness response of embedded aggregated silica nanospheres from high angle annular dark-field scanning transmission electron micrographs. *Journal of Microscopy*, 253 (2):166-170. doi:10.1111/jmi.12107.
- Mattfeldt, T., **Häbel, H.** and Fleischer, F. (2013). Block bootstrap methods for the estimation of the intensity of a spatial point process with confidence bounds. *Journal of Microscopy*, 251 (1), 84-98. doi:10.1111/jmi.12048.

Non-peer reviewed scientific articles

- **Häbel, H.**, Balazs, A., Myllymki, M. (2018). Spatial analysis of airborne laser scanning point clouds for predicting forest variables. *arXiv preprint*. arXiv:1805.08907
- **Häbel, H.**, Mattheus, M., Habeck, J. (2011). Einfluss fehlender Daten auf Analyse und Fallzahlplanung in Bioäquivalenzstudien, in: *Conference proceedings of 15. Konferenz der SAS[®]-Anwender in Forschung und Entwicklung (KSFE)*. Shaker Verlag, Aachen, 207-222.

Theses

- **Häbel, H.** (2017) *From experiments with images to 3D models*. Ph.D. thesis in Mathematical Statistics, Chalmers University of Technology and University of Gothenburg. Supervisors: Aila Särkkä (main), Mats Rudemo, Tuomas Rajala and Matias Nordin.
- **Häbel, H.** (2015) *Characterization of Micro-Structures in Materials*. Ph.Lic. thesis in Mathematical Statistics, Chalmers University of Technology and University of Gothenburg. Supervisors: Aila Särkkä (main) and Mats Rudemo.
- **Häbel, H.** (2012) *Spatio-temporal modelling of Swedish Scots pines - Modelling of open growth of trees by mixed models*. M.Sc. thesis in Econo-Mathematics, Ulm University. Supervisor: Volker Schmidt and Aila Särkkä.
- **Häbel, H.** (2010) *Block-Bootstrapping for Planar Point Processes*. B.Sc. thesis in Econo-Mathematics, Ulm University. Supervisor: Volker Schmidt.

TALKS AND PRESENTATIONS

- Invited talk: The workshop on Point Processes in Space, Time, and Beyond, Skagen, Denmark, May, 2019.
- Contributed talk: ForestSAT 2018, College Park, Maryland, USA, October, 2018.
- Contributed talk: Joint meeting for the CARISMA network and Nordic Co-operation Group for Forest Inventory 2018, Fredensborg, Denmark, August, 2018.
- Invited talk: The 27th Nordic Conference in Mathematical Statistics (NORD-STAT2018), Tartu, Estonia, June, 2018.
- Invited talk: 12th French-Danish workshop on Spatial Statistics and Image Analysis in Biology (SSIAB 12), Aalborg, Denmark, May, 2018.
- Contributed talk: Spatial Statistics 2017: One World: One Health, Lancaster University, UK, July, 2017.
- Contributed talk: II Latin American Conference on Statistical Computing 2017, Valparaíso, Chile, March, 2017.

- Invited talk: Smögen Workshop, Smögen, Sweden, August, 2014 and 2016.
- Poster: The 26th Nordic conference in Mathematical statistics (NORDSTAT2016), Copenhagen, Denmark, June, 2016.
- Contributed talk: 8th International workshop on Spatio-Temporal Modelling (METMA VIII), Valencia, Spain, June, 2016.
- Contributed talk: Bayes@Lund 2016, Lund, Sweden, February, 2016.
- Contributed talk: Spatial Statistics: Emerging Patterns, Avignon, France, 2015.
- Contributed talk: The 25th Nordic conference in Mathematical statistics (NORD-STAT2014), Turku, Finland, June, 2014.
- Poster: 11th ECS European Congress of Stereology, Kaiserslautern, Germany, July, 2013.

EXTERNAL SEMINARS

- Webinar of the Cramér Society, May 2021.
- Chalmers University of Technology and University of Gothenburg, Gothenburg, Sweden, May 2018.
- Swedish University of Agricultural Science, Umeå, Sweden, November 2017.
- Umeå University, Umeå, Sweden, October 2017.
- University of Valparaíso, Valparaíso, Chile, March 2017.
- Stanford University, Stanford, USA, March 2016.

TEACHING EXPERIENCE

- **First-cycle courses:**
Tutorials with repetition and exercises on probability theory and statistics with applications in economy (Ulm University); theoretical and computer exercise sessions on probability theory and statistics for engineers (Chalmers University of Technology); a basic course on probability theory and statistics for teachers (University of Gothenburg).
- **Second-cycle courses:**
Practical course on statistics with the software R and SAS (Ulm University); computer exercise sessions and project supervision on statistical image analysis and linear mixed models for longitudinal data (Chalmers University of Technology).
- **Third-cycle courses:**
Course on applied spatial statistics with a focus on point processes (Swedish University of Agricultural Science, Umeå).
- **Postgraduate supervision:**
Assistant supervisor since 2020 (Linköping University)
- **Undergraduate supervision:**
Master's thesis 2014 and 2019/20 (Chalmers University of Technology)

LANGUAGE SKILLS

German (native), English and Swedish (fluent, teaching-ready),
French (intermediate), Latin certificate

SOFTWARE SKILLS

R (very good), STATA (very good), SAS (very good), SPSS (good), MATLAB (good),
C++ (good), Java (good)