

Curriculum Vitae

Education

Ph.D. 2006-2010, Department of Earth Sciences, Uppsala University, Uppsala, Sweden
INAF – Osservatorio Astrofisico di Arcetri, Florence, Italy
Title of thesis “Characterization of the Optical Turbulence for Ground-Based Astronomy”
Supervisor(s): Dr. Elena Masciadri (INAF-OAA) and Dr. Anna Rutgersson (UU)

M.Sc. 2002-2006, Department of Earth Sciences, Uppsala University, Uppsala, Sweden
Title of thesis “Effects of Upwelling Events on the Atmosphere”
Supervisor: Dr. Anna Rutgersson

Courses: ESA Earth Observation Summer School, ESA-ESRIN, Frascati (Rome), 2-13 Aug, 2010
Introduction to Fortran 90, CINECA, Bologna, May 2008
Stage Méso-NH, Météo France, Toulouse, 4-8 Feb 2007
Supplemental Instruction teacher’s training, Uppsala University, Spring 2004 and 2006

Work experience

Météo-France, CNRM/GMAP, Toulouse, France

June 2011 - present – Post-doc

I am running the operational AROME weather forecast model in a high resolution over an area centred on Paris-CDG airport in an effort to improve nowcasting and provide the data of the turbulence that will be used as indata for LES-simulations of wake vortices. My main duties are the validation of AROME simulations with regard to the wind and TKE fields and finding the optimal configuration of the model and the data assimilation.

Uppsala University, Department of Earth Sciences, Uppsala, Sweden

Apr 2010 - Dec 2010 – PhD-student

The final period of my PhD was spent at Uppsala University to complete the thesis, even though I did almost all of the research at INAF-OAA . For more details, see below.

INAF – Osservatorio Astrofisico di Arcetri, Florence, Italy

Nov 2006 - Mar 2010 – PhD-student/Early-Stage Researcher

My PhD thesis was part of the ForOT-project, supported by a Marie Curie Excellence Grant, which aimed to characterise the optical turbulence. My main objective was to simulate the optical turbulence at Mt Graham using the mesoscale model Meso-NH and analysed the output against measurements from a vertical profiler. I participated in two of our measurement campaigns at Mt Graham as well as several international conferences where I presented my work.

Riksbyggen, Göteborg, Sweden

Summer 2006, 2005 and 2004 – Assistant

I was assisting in the sale of newly produced appartements and various other administrative tasks. The primary task was to assist the prospective costumers and provide them with the relevant information.

Uppsala University, Department of Physics, Uppsala, Sweden

Spring 2005 and 2004 – Supplemental Instruction Teacher

Giving extra lessons to younger students as a complement to the regular tuition. The main objective of these lessons was to try to make the students think for themselves and cooperate in order to find the answers to various problems.

Susanna Hagelin

Universeum, Göteborg, Sweden

Jan - Feb, 2002 – Museum Guide

As part of a school project I was guiding school classes and other visitors at the exhibition of this Science museum. In my case, focusing on astronomy and the ISS (International Space Station).

Publications

Peer-reviewed papers

- 7) **Optical turbulence simulations at Mt Graham using the Meso-NH model**, [Hagelin, S.](#), Masciadri, E., & Lascaux, F., 2011, MNRAS, vol. 412, issue 4, pages 2695-2706
- 6) **Mesoscale optical turbulence simulations above Dome C, Dome A and South Pole**, Lascaux, F., Masciadri, E. & [Hagelin, S.](#), 2011, MNRAS, vol. 411, issue 1, pages 693-704
- 5) **Wind speed vertical distribution at Mt Graham**, [Hagelin, S.](#), Masciadri, E. & Lascaux, F., 2010, MNRAS, vol. 407, issue 4, pages 2230-2240
- 4) **Mesoscale optical turbulence simulations at Dome C: refinements**, Lascaux, F., Masciadri, E. & [Hagelin, S.](#), 2010, MNRAS, vol. 403, issue 4, pages 1714-1718
- 3) **Optical Turbulence vertical distribution with standard and high resolution at Mt Graham**, Masciadri, E., Stoesz, J., [Hagelin, S.](#) & Lascaux, F., 2010, MNRAS, volume 404, issue 1, pages 144-158
- 2) **Mesoscale optical turbulence simulations at Dome C**, Lascaux, F., Masciadri, E., [Hagelin, S.](#) & Stoesz, J., 2009, MNRAS, volume 398, issue 3, pages 1093-1104
- 1) **Comparison of the atmosphere above the South Pole, Dome C and Dome A: first attempt**, [Hagelin, S.](#), Masciadri, E., Lascaux, F. & Stoesz, J., 2008, MNRAS, volume 387, issue 4, pages 1499-1510

Non peer-reviewed papers, as first authour.

- Comparison of the Atmosphere above South Pole, Dome C and Dome A: first attempt
Hagelin, S., Masciadri, E., Lascaux, F. & Stoesz, J., *3rd ARENA Conference - An Astronomical Observatory at Concordia (Dome C, Antarctica)*, Eds. L. Spinoglio and N. Epchtein, EAS Publication Series, 40, 85 -88
- Comparison of the atmosphere above South Pole, Dome C and Dome A: first attempt
Hagelin, S., Masciadri, E., Lascaux, F. & Stoesz, J., *Optical Turbulence - Astronomy meets meteorology*, Eds. E. Masciadri and M. Sarazin, Imperial College Press, 240-247
- Comparison of the atmospheric properties above Dome A, Dome C and the South Pole
Hagelin, S., Masciadri, E., Lascaux, F. & Stoesz, J., *Proc. of SPIE, 7012, 7012A1-7012A12*

For a complete list of publications, please visit <http://www.susannahagelin.se/publications.htm>

Skills

Languages:

Swedish (mother tongue), English (fluent), Italian (fluent), French (nearly fluent)

Computer skills:

I am comfortable in programming and data visualisation in MATLAB/Scilab and R. I am also familiar with Perl (mainly for manipulation of ascii-data files) and Fortran 90 (for processing of larger data-sets, where MATLAB is too slow.)

I am an advanced user of the Microsoft Office/OpenOffice suite, but I prefer LaTeX for writing. I can work without problem in both Linux and Windows.