

Curriculum Vitae

Erik Melin

Born in Uppsala, Sweden

June 5, 1980

Education

Ph.D. in Mathematics
Uppsala University

February 29, 2008

Licentiate Diploma (half a Ph.D.) in Mathematics.
Uppsala University

January 18, 2005

M.Sc. in Mathematics and Computer Science
Uppsala University

June 5, 2003

One semester course in the History of Science.
Uppsala University

Fall, 2000

Celsiuskolans gymnasium, Uppsala
(Swedish high school) Natural Science Program

June 4, 1999

Professional experience

Software developer, Comsol AB

2008 – present

Ph.D. student, mathematics, FMB

2003 – 2008

Assistant university teacher

2000 – 2003

Entrepreneur in Software Development
Melin Software HB. www.melin.nu

1997 – present

Software Development for O-Ringen 2001
An orienteering competition with 15,000 participants.

2000 – 2001

Scientific activities

My field of research is digital geometry, the geometry of computer images.

Selected publications

Digital straight lines in the Khalimsky plane, *Math. Scand.* (2005)

Extension of continuous functions in digital spaces with
the Khalimsky topology, *Topol. Appl.* (2005)

Continuous digitization in Khalimsky spaces, *J. Approx. Theory.* (2008)

There is a more complete bibliography on my
web site, www.melin.nu/math.



Erik Melin

E-mail: erik@melin.nu

Phone: +46 18 507748

Mobile: +46 702 638569

Address: Stigbergvägen 11,
SE-75242 Uppsala, Sweden

*"Even if you run in
the wrong direction,
it does matter how
fast you run"*

Selected scientific presentations

"Locally finite spaces and the join operator". ISSM 2007, Rio de Janeiro, Brazil, October 2007.

"Digital Geometry and Khalimsky spaces". Lecture at GeoNet, Porto-Novo, Benin, June 2007.

"Digital manifolds and the calculus of neighborhoods". Seminar at Université Louis Pasteur, Strasbourg. March 2007.

"How to find a Khalimsky-continuous approximation of a real-valued function". International Workshop on Combinatorial Image Analysis, Auckland, New Zealand, December 2004.

Teaching

I have been a teacher on several math courses, including Basic algebra, Calculus of one and several variables, Fourier methods and Logic. I have delivered lectures to 250 students in an introductory course.

Teaching material

I have developed the following teaching material.

Introduktionskurs i matematik
(Introductory course in mathematics) 53 pp.

Flerdimensionell analys i bildbehandling
(Calculus and Digital Image Processing) 9 pp.

Scientific visits

Visit to ESIEE, Paris, February – March 2007.

Computer knowledge

Large scale development in C++ and PHP with databases. Expert knowledge of Windows API and DirectX. I have a good command of several types of software, including Typesetting (InDesign and LaTeX), Image processing, Vector graphics, Computations (Matlab and Maple).

Languages

Swedish (native); English (proficient); German (basic); Italian (reading)

Miscellaneous

I run cross country orienteering with my club OK Linné.

I am a juggler and have been instructor at the Uppsala Circus School for children.

I play the organ in my spare time, primarily Baroque music.

References will be provided on request.