Mikael Passare 1959–2011

Christer Kiselman

Mikael Passare's Day

At Stockholm University

2012-09-14   10:00–10:20

Mikael Passare (1959–2011) was a brilliant mathematician. His PhD thesis from 1984 was a breakthrough in the theory of residues in several complex variables. Some time before 1998 he started to work on the theory of amoebas and coamoebas. |

Mikael started his studies at Uppsala University in the fall of 1976 while still a high-school student, merely seventeen and a half. He finished high school in June, 1978, gave his first seminar talk in November 1978, got his Bachelor Degree in 1979, and presented his PhD thesis at Uppsala University on December 15, 1984.

Mikael (age 22), Jean François Colombeau, Leif Abrahamsson and Urban Cegrell in March or April 1981

He was appointed a professor at Stockholm University in 1994, on the chair which was created for Sonja Kovalevsky (1850–1891) and held during seven years, 1957–1964, by his mathematical grandfather Lars Hörmander. |

Mikael Passare died from a sudden cardiac arrest in Oman on September 15 last year. He is buried not far from Sonja's grave. I hope we can visit his grave in the afternoon.

Mikael's PhD students

Mikael served as advisor of nine PhD students who successfully completed their degrees. They are registered in the *Mathematics Genealogy Project* and are:

Yang Xing, 1992, Stockholm University: *Zeros and Growth of Entire Functions of Several Variables, the Complex Monge–Ampère Operator and Some Related Topics*.

Mikael Forsberg, 1998, The Royal Institute of Technology: *Amoebas and Laurent Series*.

Lars Filipsson, 1999, The Royal Institute of Technology: *On Polynomial Interpolation and Complex Convexity*.

Timur Sadykov, 2002, Stockholm University: *Hypergeometric Functions in Several Complex Variables*. Although not listed in the Genealogy Project, August Tsikh served as a coadvisor for Timur.

Hans Rullgård, 2003, Stockholm University: *Topics in Geometry, Analysis and Inverse Problems*.

Johan Andersson, 2006, Stockholm University: *Summation Formulae and Zeta Functions*. **Speaking later today!**

Alexey Shchuplev, 2007, Stockholm University: *Toric Varieties and Residues*. August Tsikh was second advisor.

David Jacquet, 2008, Stockholm University: *On Complex Convexity*.

Lisa Nilsson, 2009, Stockholm University: *Amoebas, Discriminants, and Hypergeometric Functions*. August Tsikh was second advisor.

Africa

Mikael was deeply involved in the development of mathematics in Africa: he was a member of the Board of the International Science Programme (ISP), Uppsala, and a member of the Board of the Pan-African Centre for Mathematics (PACM) in Dar es-Salaam, Tanzania. He was a driving force in the creation of this Pan-African Centre, which is a collaborative project between Stockholm University and the University of Dar es-Salaam, and was actively searching for a director of PACM.

Seminars

Mikael's gave his first seminar talk during the Fall Semester of 1978. He reported on chosen sections of the little book by Lev Isaakovič Ronkin (1931–1998), *The Elements of the Theory of Analytic Functions of Several Variables* (1977), which had been published in Russian in 2,700 copies in Kiev the year before and cost 93 kopecks. The task was a part of the examination for the course *Mathematics D*. |

He gave a total of 29 seminar talks over the period 1978–2010.

The *Nordan* Meetings

Together with Mats Andersson and Peter Ebenfelt, Mikael Passare initiated a series of encounters on complex analysis in the five Nordic countries. Mikael and Peter organized the first conference, which took place in Trosa, Sweden, 1997 March 14–16; Mats the second, in Marstrand, Sweden, 1998 April 24–26.

Mikael Passare, Nikolay Shcherbina, Gennadi Henkin, Burglind Jöricke, August Tsikh and Nils Øvrelid at *Nordan 1*, Trosa, 1997-03-14–16

Following a voting procedure at the end of the first meeting, these yearly meetings were named *Nordan*. |This is the name in Swedish of a chilly wind from the north, but also reminds us of the original purpose: to promote Nordic Analysis. |

It is a clear reference to *Les Journes complexes du Sud*, which during a long time have taken place in the south of France.

Mikael edited abstracts in Swedish of the lectures—which had all been given in English. These brochures were published with a delay of a few years. Twelve of them have come out; he was preparing the thirteenth, which was to report on *Nordan 13* held in Borgarfjordur in 2009, and asked Ragnar Sigurðsson on 2011 September 10, to write a preface in Icelandic (Ragnar Sigurðsson, personal communication 2011-10-04). |

Lars Filipsson emphasizes (personal communication 2011-10-06) that Mikael wrote these brochures in Swedish to develop Swedish terms in higher mathematics, especially in complex analysis—otherwise the Swedish mathematical terms reach up to the first, possibly the second, university year only.

Nordic meetings like these were something that Mikael and Mats had discussed and planned during many years; both of them wanted to create a forum with a more relaxed atmosphere, where Nordic complex analysts, in particular the young ones, could feel more at home than at international conferences, and which would give those that worked in the Nordic countries occasion to get to know each other better. |

The initiative turned out to be a long-lasting success: the fifteenth encounter took place in Röstånga in southern Sweden, 2011 May 06–08; |the sixteenth was in Kiruna, 2012 May 11–13, and the seventeenth is planned to take place somewhere in Norway in 2013.

An extraordinary curiosity

Andrei Khrennikov writes:

> I would like mention Mikael's extraordinary curiosity, which was extended to a large variety of fields. In particular, he discussed with excitement the possibility of mathematical modeling of cognition, human psychological behavior, and consiousness. I met Mikael and Galina the last time in July 2010, in Stockholm, and during one evening we discussed a large variety of topics: complex and p-adic analysis, mathematical foundations of quantum physics, quantum nonlocality, Bell's inequality and experiments [. . .] (Andrei Khrennikov, personal communication 2011-11-26)

A passionate traveler

Mikael was a passionate traveler. He visited 152 countries. |

The United Arab Emirates and Oman turned out to be the last ones. Land number 153 should have been Iran: he planned to arrive at Tehran Imam Khomeini International Airport on September 17 at 21:25 (Mikael Passare, electronic letter 2011-09-15 to mathematicians in Tehran). Siamak Yassemi, Head of the School of Mathematics, University of Tehran, was ready to meet him there.

Finally

Mikael's significance goes much beyond his own research. Many persons have testified to his positive view of life, his humor, and to his genuine interest in people he met. He was an unusually stimulating partner in discussions; listening, inspiring, and supportive, in professional situations as well as in private ones.

Texts on Mikael's life and work

An Obituary, 22 pages;

Abridged Obituary, published in *The Newsletter of the European Mathematical Society*, June 2012, issue 84, 12–15;

Questions inspired by Mikael Passare's mathematics, accepted for publication in *Afrika Matematika*;

and other texts are available at the web site

<div style="text-align:center">

Mikael Passare In Memoriam

</div>

|

Google the words

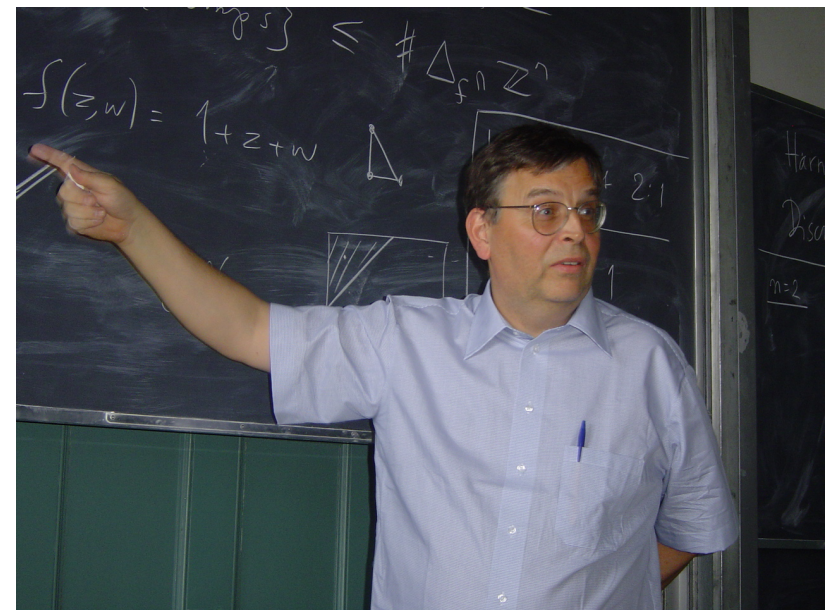<div style="text-align:center">

Passare Memoriam

</div>

and you will find.

Mikael and August in Toulouse, 2002

Nordan 12, Åland, 2008

At Institut Mittag-Leffler, 2008

Håkan Samuelsson, Elin Götmark, Elizabeth Wulcan, Mikael Passare and Liz Vivas at Institut Mittag-Leffler, Spring of 2008

Excursion during the Viro Conference, 2008-05

Mikael Passare, Torbjörn Lundh and Ulla Dinger at Hyderabad, Andhra Pradesh, 2010

Thank you!