

Talk at Aamands

Christian Berg

August 27, 2015

Dear guests,

I am really happy that so many have come to Copenhagen to take part in the conference organized by Henrik and Jacob. To Henrik and Jacob I am so thankful that they have invested time and energy in getting funds for the conference and to have organized everything so smoothly.

I turned 70 last year in June and retired by the end of August last year. It is known to most of you that I have been happy with my work as a mathematician, and even if the old retirement age of 70 was no longer in force, I thought that time had come to skip the boring parts of the teaching obligations and be free to do what I like most.

The real difficult part of the retirement was to reduce the content of my office to one third, since I should move to a shared office with 3 retired people. This is all done and I enjoy working at home and to come in to my shared office 2-3 times a week, especially when I have lots of things to print. I am now sharing an office with Bent Fuglede, and I hope that I will be in as good shape as he is now at the age of almost 90, if I live that long.

It is a funny coincidence that this restaurant, where we are now, lies in an area where my wife Margrete and I loved to live. Just across the street lie some old but very valuable rowhouses called "The potato rows" and we bought one of those when we got married in 1967 and stayed there till the end of 1975, when we moved to our present home in Virum.

So we know this charming area for 8 years except for two very import years in my mathematical life:

Our one year stay in Paris 1969-70, where I learned potential theory from Brelot, Choquet and Deny and took part in the famous seminaire BCD named after them. In 1971 I got my phd in Copenhagen largely based on work done in Paris. After 3 years as associate professor I got a one year sabbatical leave to go to UCLA, where Margrete, our daughter Nanna and I spent the academic year 1974-75.

Already from High-school I was fond of the French language and I enjoyed studying Bourbaki as supplement to the courses taught. This made me spend 3 months during my 4th year of study in Nancy in France mainly because Bourbaki

was published at University of Nancago-a mixture of Nancy and Chicago. Pierre Eymard, then young newly employed professor in Nancy, has been very influential for my career as well as my teachers Jessen and Fuglede in Copenhagen. In Paris I was particularly impressed by the work of Jacques Deny with his mixture of potential theory and harmonic analysis. This mixture was also influential in my choice of going to UCLA because of Port and Stone in stochastic processes on locally compact abelian groups and John Garnett in classical harmonic analysis.

Exactly 40 years ago Paul Ressel came to Copenhagen for the academic year 1975-76 to work on probability theory together with my colleague Topsøe. This lead to a life-long friendship with Paul, who is here today with Ewa, and it was the beginning of a lot of work on positive definite functions on semigroups and eventually a monograph, where also my colleague Jens Peter Reus Christensen played an important role as coauthor.

It was "harmonic analysis on semigroups" which lead me to my favorite topic for the last 30 years: The moment problem and all its ramifications. I decided to make a graduate course on Akhiezer's book: "The classical moment problem" in 1979, in order to learn the subject.

Only in 1989 I switched completely to this new area and left potential theory. The starting point was the conference and summer school organized by Paul Nevai in Columbus, Ohio in 1989 exactly in the week with the uprising on Tiannamen Square in Beijing. I met several people present here for the first time at this occasion including Ted Chihara.

I have had collaboration with many other authors, and because of time I will only mention 3 more here in my new area: Henrik Laurberg Pedersen wrote a Master's thesis on the indeterminate moment problem and complex analysis, and soon his knowledge of complex analysis was far above mine. I have enjoyed immensely to write papers with him.

In 1991 Dehesa organized a conference on orthogonal polynomials in Granada and I met Antonio Durán, who is here with Lourdes. Since then we have met many times in the wonderful town of Seville and in Copenhagen, and with his energy and his ability to see exactly how things can be generalized, I am very happy and proud of our collaboration.

The most recent collaboration of mine is with Ryszard Szwarc from Wrocław. He invited me to Wrocław in 2007 to give som lectures for two months based on a special grant from the European Union. Ryszard is a very smart guy and everyone having read some of his papers will admire his short and elegant proofs. I have visited Wrocław many times now and it has been added to my list of favourite cities like Paris, Seville and now Wrocław.

I also like to pay tribute to Misha Sodin, who is here with Julia. He came to Copenhagen for the academic year 1994-95. He lectured on Riemann surfaces and brought a lot of knowledge from the Harkov school of mathematics. His energy and insight is fantastic, and since the Sodin family was living near my house, I often gave him a ride home, which made me busy to follow up on all the

information he passed on to me. I am extremely thankful for all the mathematics and friendship he has given me.

When I come home from conferences, I often tell Margrete about the social activities during the meetings-what else should I tell to a non-mathematician? Therefore she always teases me by saying that these meetings are just vacation. This is certainly not true-the participants and I always listen to a lot of talks, but to be honest, there are always lots of details that at least I cannot understand. Anyway, I always get some mathematics back with me.

I must say that it has been a wonderful life as a mathematician. It has given me the opportunity to visit many places around the world, where I would never have gone as a tourist. Lately Gopala Srinivasan together with Swaminathan invited me 3 weeks to India, visiting and giving lectures at Delhi, Roorkee, Mumbai and Bangalore.

This idea of setting aside one half-day during a conference for an excursion to learn something about the country, we are visiting, is very important. It is often during these tours, where we walk listening with one ear to a guide and with another ear to a mathematician next to you, that new friendships and mathematical cooperation emerge. As an illustration: It was during the guided tour of Alhambra in Granada that I met Antonio Durán.

I suggest that we give a toast to mathematics and to mathematics conferences, and that we use this occasion to address the thanks to Henrik and Jacob.

Thank you Henrik and Jacob for all your work done.