Extract from OP-SF NET 22.1

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The conferences on Foundations of Computational Mathematics are on topics at the interface of mathematics and computation. So far there have been FoCM conferences in Rio de Janeiro (1997), Oxford (1999), Minneapolis (2002), Santander (2005), Hong Kong (2008), Budapest (2011) and the latest meeting was in Montevideo, Uruguay from December 11 to December 20, 2014. These conferences usually are arranged into a number of periods emphasizing different topics within the scope of FoCM. In the mornings there are plenary talks by distinguished speakers, in the afternoons there are workshops devoted to a different theme.

I attended the second and third period of the conference. The second period had workshops in *Approximation Theory* (organized by Nira Dyn, Tom Lyche, and Holger Wendland) and a related plenary talk by Pencho Petrushev: *On the characterization of approximation spaces in nonlinear approximation.* There was also a workshop on *Random Matrices* (organized by Alan Edelman and Raj Rao) and on *Symbolic Analysis* (organized by Evelyne Hubert, Peter Paule and Enrique Reyes) dealing with topics which are of interest to our Activity Group. However, I was mostly attending the conference for the third period, which had the workshop *Special Functions and Orthogonal Polynomials*, organized by Peter Clarkson, Kerstin Jordaan, and Francisco Marcellan, and a plenary talk by Andrei Martinez-Finkelshtein where he explained that *Zeros (of some polynomials) prefer curves.* As usual Andrei's talk was very well organized with interesting slides and nice transitions between the slides, and he succeeded well in explaining the potential theory and the symmetry property (S-property, where S stands for Symmetry or Stahl) for these curves. He also gave a nice open problem which he explained very well by using animated graphics of the zeros.

The workshop on *Special Functions and Orthogonal Polynomials* ran during three days and had a number of 30-minute talks and two 50-minute (semi- plenary) talks. It was nice to hear a number of talks of participants from South and Central America, such as Alagacone Sri Ranga, Luis Garza, Cleonice Bracciali, Primitivo Acosta-Humanez, Luis Verde-Star, Jan-Felipe van Diejen and Natig Atakishiyev. I particularly liked the talk of Arieh Iserles who introduced the notion of *kissing polynomials*. Unfortunately one of the speakers did not come, so Peter Clarkson had to step in at the last moment, but he nevertheless managed to give a nice talk.

I recommend anyone to go to the next FoCM conference. It has not yet been decided where this will be held, but it will probably be in 2017 or 2018. Information about the Society of Foundations of Computational Mathematics can be found at
http://focm-society.org/index.php .

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