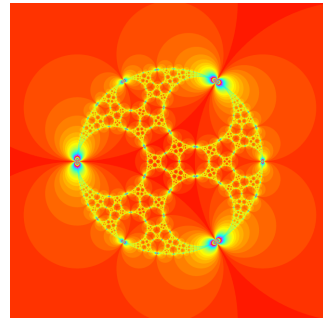


**Oberseminar Geometrie**  
Department of Mathematics  
University of Fribourg  
Seminar room, Math II (Lonza)  
**Wednesday December 4, 2019, 10:20**



LIVIO LIECHTI (UNIFR)

### **Growth rates of Coxeter groups as spectral radii**

Providing the same recurrence formulas for both quantities, we show that any growth rate of a polygonal reflection group equals the spectral radius of the Coxeter transformations associated with some star graph. This result was originally obtained by E. Hironaka via the computation of Alexander polynomials of pretzel links, and it allows for an exchange of methods. For example, one way to show that exactly five Salem numbers  $< 1.3$  are growth rates of polygonal reflection groups is to use McMullen's work on the spectral radii of Coxeter transformations. We conclude by discussing possible generalisations suggested by the recurrence formulas.