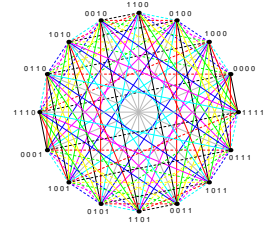


**Jointly Organized by
School of Computer Science and
Department of Mathematics and Statistics**



March 20 (Thursday), 16:45 – 17:45, Burnside Hall 1B36

Stable periodic circle packings in the plane

by

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Abstract. Suppose that a packing of the plane is such that small perturbations can only increase its overall density. Here we allow the lattice that defines the periodicity as well as the packing circles to move, as long as the perturbed packing circles do not overlap. The familiar triangular packing with some of the disks removed has this property. But we show that there is another class of packings that also have this property. It comes from a special tiling of the plane by equilateral pentagons and equilateral triangles, but needs to be braced by a particular placement of equilateral triangles and rhombuses. It is an open question as to whether there any other such stable packings. This is joint work with A. Donev, F. Stillinger, and S. Torquato.

Organizers: D. Avis(CS), W. Brown(Math), D. Bryant(CS/Math), L. Devroye(CS), K. Fukuda(CS), B. Reed(CS), V. Rosta(Math), G. Toussaint(CS) and S. Whitesides(CS).

Information: <http://www.cs.mcgill.ca/~fukuda/semi/discmath.html>