**Applied Mathematics and Mathematical Physics Seminar**

* Friday Mar 28, 2014

**Speaker:** Thomas Hillen (University of Alberta)

**Place:** TBA

**Time:** 11:30 am

**Title:** Chaotic patterns in chemotaxis

**Abstract:**

The chemotaxis model with logistic growth is able to show interesting spatio-temporal chaotic patterns. In this talk I will motivate this model, and analyse the resulting patterns. We find positive Lyapunov exponents and a period doubling sequence, both indications of chaotic behavior. I will present a discrete dynamical system, which can, surprisingly, reproduce most of these patterns. (joint work with K.J. Painter and J. Zielinski).