



Department of Mathematics and Statistics

COLLOQUIUM

Tuesday, November 3rd, 2015

4:00 – 5:00 pm, Adel Mathematics Bldg., Room 164
(refreshments at 3:45)

Dr. Derek Sonderegger
NAU Department of Mathematics

Techniques for fitting occupancy models and simulation results

Abstract: Detection/non-detection data is often modeled using either the “standard” model or the Royle-Nichols model. To fit complicated effect structure, researchers are often forced to implement one or the other in a Bayesian modeling software package. We review the practical limitation due to MCMC convergence of the standard model and demonstrate a solution to the convergence issue of the standard model using Stan. We conclude by presenting simulation results demonstrating the bias of the Royle-Nichol model under certain circumstances as well as successful fitting of the standard model.

Algebra Combinatorics Geometry and Topology (ACGT) Seminar meets every Tuesday, 12:45 – 1:45 pm, AMB 164.

Applied Math Seminar (AMS) will meet occasionally on Thursdays, 12:45 – 1:45 pm, AMB 164. Stay tuned for several upcoming talks.

Friday Afternoon Undergraduate Mathematics Seminar (FAMUS) meets Fridays, 3pm, AMB 164.