Date: Friday, 7 August 2020
Time: 3:00pm – 4:00pm
Speaker: Professor Matt Wand (University of Technology Sydney)
Venue: Zoom

Title: Streamlined variational inference for random effects models

Abstract: Variational inference offers fast approximate inference for graphical models arising in computer science and statistics. However, for models containing random effects, direct application of variational inference principles is not sufficient for fast inference due to the sizes of the relevant design matrices. We explain how the notion of matrix algebraic streamlining is crucial for making variational inference practical for models containing very high numbers of random effects. Both nested higher level and crossed random effect structures are discussed.