A Medley of Mixtures

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Mixture models have now become an important tool in statistical modelling, with the EM algorithm being an important driver in their popularization and applicability. This talk will discuss a range of different mixture models and their use in addressing specific applied problems. Examples discussed will include: mixtures of non-linear regression models for fish growth studies; mixtures of smooth curves for clustering time-course microarray data; mixture orthogonal regression models for sugarcane SNP data; regression mixture models for outlier detection/accommodation; finite mixture approaches for random effect models with applications in entomology.