It is well known that the spatial resolution of EEG/MEG source estimation is limited. This affects all applications that are based on source estimates. Most previous evaluations of source estimation methods have focussed on univariate activation, i.e. homogenous activation within brain regions. In this project, you would evaluate distributed source methods for applications of multivariate and multidimensional methods (e.g. pattern classification and multidimensional connectivity). For linear methods, this could be achieved by extending the concept of the resolution matrix (and point-spread and cross-talk functions) to activity patterns. This will require a range of systematic simulation studies, but there will be ample scope to test the methods on new or existing data sets.