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*A Bayesian Predictive Model for Imaging Genetics with Application to Schizophrenia*

In this talk, I'll introduce an integrative Bayesian risk prediction model that allows to discriminate between schizophrenic patients and healthy controls, based on a sparse set of discriminatory ROIs (region of interests) and SNPs (single-nucleotide polymorphism). Inference on a regulatory network between SNPs and ROI intensities (ROI-SNP network) is used in a single modeling framework to inform the selection of the discriminatory ROIs and SNPs. Using simulation studies, we assess the performance of our method, and we apply it to a schizophrenia dataset. We confirm that some biomarkers involved in the ROI-SNP network are more likely to be discriminating.