

## DEPARTMENT OF PHYSICS AND ASTRONOMY COLLOQUIUM IN-PERSON ONLY EVENT



MRI-based Imaging Markers for Parkinson's disease and opportunities

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Parkinson's disease is a heterogeneous neurodegenerative disorder with a variety of motor and non-motor symptoms that can be clinically challenging to diagnose and manage since there are no effective interventions to stop PD neurodegeneration. The loss of melanized neurons in the substantia nigra pars compacta is a hallmark pathology of Parkinson's disease and up to half of the dopaminergic neurons in substantia nigra pars compacta are lost at the time of diagnosis. In this talk, I will emphasize of two types of magnetic resonance imaging (MRI) images that can be used to image parkinsonian changes in substantia nigra, 'neuromelanin-sensitive' MRI and diffusion-weighted MRI. I will also detail our efforts to develop imaging markers for diagnosis of Parkinson's disease using these contrasts and address potential issues with the interpretation of changes in these images.



Thursday, October 17, at 3:55 PM

**IN-PERSON EVENT ROOM 202** 

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