Medical Physics Seminar

Monday, October 10, 2016

1345 HSLC - 4:00 P.M.

Camille Garcia-Ramos

Research Assistant
Student of Dr. Vivek Prabhakaran
Department of Medical Physics
UW-School of Medicine and Public Health

Development of Covariance Networks of Cortical/Subcortical Volumes on Children with New-onset Epilepsy

Graph theory is an analysis methodology that makes possible the study of complex networks like the brain in a highly complete manner by enabling general as well as specific investigations. Graph theory analyses have been implemented at the structural brain level through the use of covariance analyses of cortical thickness or volumes; however, its uses regarding prospective brain development have not been explored yet. Studying the brain development in cases of new-onset idiopathic epilepsies, where there is no known cause for their origin would provide special insights about epilepsy brain status early on the syndrome. In this investigation the brain development in children with new-onset idiopathic epilepsies would be investigated using graph theory techniques on covariance networks of brain volumes by combining both baseline and follow-up studies into a single graph that would be used for evaluations.

1345 HEALTH SCIENCES LEARNING CENTER (HSLC) - 4:00 - 5:00 P.M.