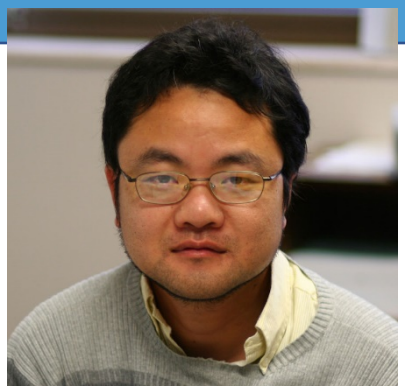
BIOSTATISTICS SEMINAR

Challenges in Biobank-scale Brain Imaging Genetics



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Recently the UK Biobank study has conducted brain magnetic resonance imaging (MRI) scans of over 40,000 participants. In addition, publicly available imaging genetic datasets also emerge from several other independent studies. We collected massive individual-level MRI data from different data resources, harmonized image processing procedures, and conducted the largest genetic studies so far for various neuroimaging traits from different structural and functional modalities. In this talk, we showcase novel clinical findings from our analyses, such as the shared genetic influences among brain structures, functions, and the genetic overlaps with a wide spectrum of clinical outcomes. We also discuss challenges we have faced when analyzing these biobank-scale datasets and highlight opportunities for future research. This presentation is based on a series of works with members in the BIG-S2 lab of the University of North Carolina at Chapel Hill. Our results can be easily browsed through the Brain Imaging Genetics Knowledge Portal (BIGKP) (https://bigkp.org/).

Thursday April 7, 2022, 3:30-4:30 PM Eastern

McGavran-Greenberg Hall - Room 1301

Virtual using link and info below.

Link: https://unc.zoom.us/j/98412143955?pwd=a1p6c3hvZ28wSnk3dVVXQWl0dEpzdz09

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