AMS DEPARTMENT SEMINAR

The Geometry of Human Intelligence for AI

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- BS in Mech. & Aero Engineering, Seoul National University
- Research interest: Electrodynamics, Moving Frames, Curved surfaces, Electrophysiology, Cardiology, Neuroscience

RSVP Here!!

Seminar Information

- **Date:** April 24 (Mon), 2023
- **Time:** 6:40 - 7:40 PM in KST
- **Location**: B105
- **Please RSVP for the Dinner!**

Abstract

Recent advances in artificial intelligence (AI) have drawn unprecedented attention from every corner of our society. This presentation focuses on AI based on neural network algorithms. These algorithms derive from the study of a small region or function of the brain, particularly regarding vision. Their implications are almost limitless in the modern era but only a handful of applications survive, leaving other applications incomplete or inferior. Thus, we should pay attention to what is missing in AI algorithms compared to the real human brain before being overwhelmingly pessimistic about AI. Among the critical factors which will limit AI functionalities, we focus on the unique structure and distribution of neural fibers within a small volume of the brain, called the geometry of intelligence. The geometry of intelligence may explain the secret behind superior data processing efficiency and the mysterious entanglement with our physical world. The study of the geometry of intelligence can shed light on a possible breakthrough with respect to the current critical flaws of AI, or at least help us better understand the boundaries of AI for constructive and safe applications.

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