2018 NCTS Summer Course: Diffusion Learning Theory and Medical Applications – the first step

Time 2018/7/31, 8/7, 8/14, 8/21
10:30-11:45, 13:00-14:15

Venue Room 201, NCTS
Astro-Math Bldg., NTU

Speaker:

Gi-Ren Liu (National Cheng Kung University)

The lecture is based on the upcoming text book "Ten lectures in diffusion map" by Amit Singer and Hau-tieng Wu.
Here is a tentative course plan for this short course:
Graph Laplacian (GL) and spectral graph theory. Random walk on a graph and Diffusion maps (DM). Relationship with locally linear embedding, eigenmap, etc. Natural metrics on an affinity graph – Diffusion distance (DD) and commute time. Bochner theorem.

Organizers:

Hau-Tieng Wu (Duke University)
Yuan-Chung Sheu (National Chiao Tung University)