CS6208 : Advanced Topics in Artificial Intelligence
Graph Machine Learning

Administrative (Week 12)

Semester 2 2022/23

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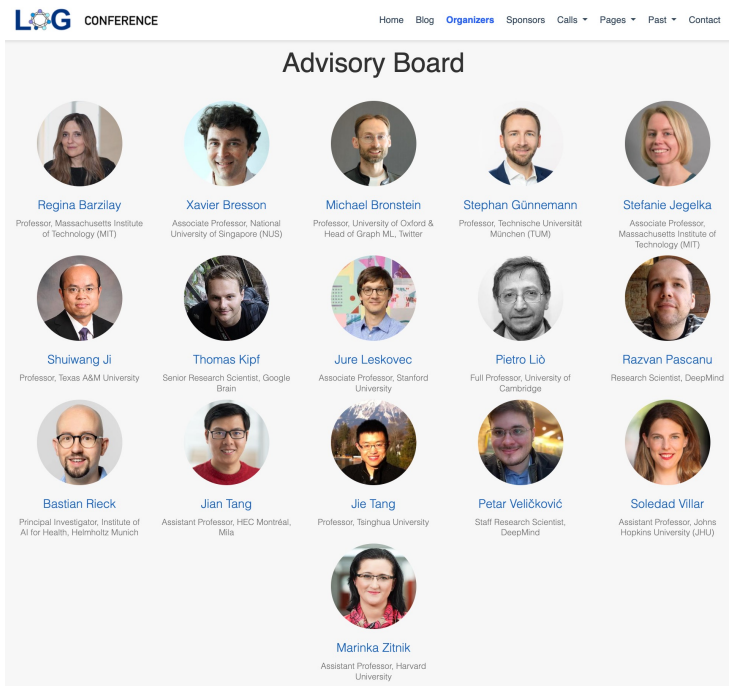
Reminder

- Course evaluation – see admin_week06.pdf for details
  - Paper review – deadline : Week 13, Tue April 11th 2023 11:59pm
  - Group project – deadline : Week 14, Tue April 18th 2023 11:59pm
  - Penalty : You will lose 25% of the grade every late day (except medical certificate)
  - Office hour : Use Week 13 for the last in-person discussion (I will travel Apr 12-19)
    - https://docs.google.com/spreadsheets/d/1ynmNJtMazF7HbKXwot8_UY9s-Gm6a9g_XuaoA9S1Pv0

Learning on Graphs Conference 2023

- Consider submitting your paper on learning and graphs ☺

https://twitter.com/xbresson/status/1642085753982435328



https://logconference.org

Tentative Lectures

- Introduction to Graph Deep Learning
- Part 1: GML without feature learning (before 2014)
  - Introduction to Graph Science
  - Graph Analysis Techniques without Feature Learning
    - Graph clustering
    - Classification
    - Recommendation
    - Dimensionality reduction
- Part 2 : GML with shallow feature learning (2014-2016)
  - Shallow graph feature learning
- Part 3 : GML with deep feature learning, a.k.a. GNNs (after 2016)
  - Graph Convolutional Networks (spectral and spatial)
  - Weisfeiler-Lehman GNNs
  - Graph Transformer & Graph ViT/MLP-Mixer
  - Benchmarking GNNs
  - Generative GNNs and molecular science
  - Combinatorial optimization
  - GNNs for recommendation
  - GNNs for knowledge graphs

Questions?