2021 Texas A&M Institute of Data Science Research Conference

December 9, 2021, Thursday, 8:30 am – 4 pm
Location: Rudder 601 and online
For registration, please visit the conference site here

8:30 Check in
8:45 Jack Baldauf, Interim Vice President for Research, Welcome Remark
8:50 Nick Duffield, TAMIDS Director, Overview of TAMIDS Research Programs

Morning Session — TAMIDS Thematic Lab Program
9:00 Scientific Machine Learning Lab
- Director’s overview (Ulisses Braga Neto, ECEN)
- Scientific machine learning in phase field models for materials discovery (Raymundo Arroyave, MSEN)
- Application of scientific machine learning to radiative transfer and explosion physics (Lifan Wang, PHYS)
- Modeling subsurface flows for reservoir simulation using scientific machine learning (Eduardo Gildin, PETE)

9:55 Break

10:00 Operational Data Science Lab
- Co-Director’s overview (Nick Duffield, TAMIDS/ECEN)
- Traffic information retrieval and analysis in major events based on monitoring visual data (Yalong Pi, TAMIDS)
- RDash: An organizational intelligence platform for institutional research (Jian Tao, VIZ)

10:55 Break

11:00 Visceral Intersensory Visualization & Information Design (VIVID) Lab
- Director’s overview (Ann McNamara, VIZ)

11:30 Data Justice Lab
- Director’s overview (Lu Tang, COMM)

12:00 Lunch break

Afternoon Session 1 — TAMIDS Data Resources Development Program
1:00 Classical and quantum machine learning for predictive single-cell biology (James Cai, VIBS)
1:20 Tracking emotion and dialog content of YouTube vlogs posted during the COVID-19 pandemic (Kexin Feng, CSCE)
1:40 Time series clustering for understanding social distancing effectiveness during COVID-19 (Zhe Zhang, GEOG & Ziyi Zhang, ECEN)

2:00 Revealing social awareness and behavioral Changes during Covid-19 through geospatial big data (Lei Zou, GEOG)
2:20 Group discussion

2:30 Coffee Break

Afternoon Session 2 — TAMIDS Post-doc Program
2:50 Phylogenetically informed Bayesian truncated copula models for microbial networks (Hee Cheol Chung, STAT)
3:10 A novel scalable algorithm for Gaussian process regression (Liang Ding, ISEN)
3:30 Scalable Gaussian-process regression and variable selection using Vecchia approximations (Jian Cao, STAT)
3:50 Group discussion

4:00 Wrap-up discussion and closing remarks

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