2022 APS Short Course

Longitudinal Data Tensor-Linear Modeling & Space-kime Analytics

Distance-based virtual March 2022 APS Meeting | GDS Short Course
March 13th, 2022, 9:00-17:00, US Central Time, (UTC-6)

Instructors

- Maryam **Bagherian**, University of Michigan
- Miaoyan **Wang**, University of Wisconsin-Madison
- Raj **Guhaniyogi**, Texas A&M University
- Anru **Zhang**, Duke University
- Ivo **Dinov** (Organizer), University of Michigan
- Maria **Longobardi** (GDS Program Chair), University of Naples Federico II

Logistics

Full-day (8-hours), enrollment capped at 30 participants. See website for registration, prerequisites, coverage & program. APS courses require a nominal registration fee ($80 – 200), 2-4 need-based fee-waivers may be awarded to trainees (see website)

https://myumi.ch/G1411
https://march.aps.org/events/gds-short-course

This short course will cover the current state-of-the-art approaches for tensor-based linear modeling and space-kime analytics. The instructors will present a generalized framework for modeling and prediction of scalar, matrix, or tensor outcomes from observed tensor inputs. In addition, we will demonstrate the complex-time (kime) representation of longitudinal data, where the temporal event order is generalized to the (unordered) complex plane. This generalization transformed classical time-series to 2D kime-surfaces. Various biomedical and health applications will be showcased.

American Physical Society (APS)
Group on Data Science (GDS)

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URL: https://wiki.socr.umich.edu/index.php/SOCR_News_APS_GDS_ShortCourse_March_2022