**CAP Seminar Calendar, Spring 2024**

**(Organizer: Paula Silva)**

**Exploring non-linear methods**

In the Spring, the CAP seminar will focus on non-linear methods for data analysis which are useful to describe patterns and interactions hidden in noisy, time-variant data.

During the seminar, discussion leaders will provide theoretical introductions to methods such as Recurrence Quantification Analysis (RQA) and fractal analysis, which have been applied to study a wide range of phenomena, such as interpersonal interactions, postural control, visual search behavior, speech and communication, and much more! Theoretical discussions will be complemented by hands-on sessions where students will demonstrate their attempts to apply the analysis methods discussed.

We will meet on Fridays, as usual, 2:00-3:30, at CCH 3105. We **strongly** encourage in person participation.

**January 17th**

* **Agenda:** Administrative Meeting
* **Details:**  Overview of semester schedule; Distribution of responsibilities; IRB protocols; Github as information sharing tool
* **Leader:** Dr. Paula Silva, Dr. Kevin Shockley, Dr. Trent Wirth
* **Note:** All members interested in using CAP facilities for research should attend.

**January 24th**

* **Agenda:** Group Discussion
* **Theme:** Non-linear Methods: why bother?
* **Leader:** Anthony Chemero

**January 31st**

* **Agenda:** Group Discussion
* **Theme:** Categorical Auto-Recurrence & Cross-Recurrence
* **Speaker:** Paula Silva

**February 7th**

* **Agenda:** Student Presentations
* **Theme:**  Categorical Recurrence Demos
* **Lead Presenter:** TBA

**February 14th**

* **Agenda:** Speaker
* **Theme:** Work on Categorical Recurrence
* **Presenter:** Alex Paxton, University of Connecticut

**February 19th – Wednesday**

* **Agenda:** Speaker (in person) -
* **Theme:** Group Agency / Group Cognition
* **Presenter: Glenda Satne**

**February 21st**

* **Agenda:** Group Discussion
* **Theme:** Phase Space Reconstruction
* **Presenter:** Paula Silva

**February 28th**

* **Agenda:** Student Presentations
* **Theme:** Phase Space Reconstruction demos
* **Lead Presenter: TBA**

**March 7th**

* **Agenda:** Group Discussion
* **Speakers:** Continuous Recurrence & Cross Recurrence
* **Presenter:** Kevin Shockley

**March 14th – Pre-Spring Break, no meeting, work on Demos!**

**March 21st – Spring Break no meeting**

**March 28th**

* **Agenda:** Student Presentations
* **Theme:** Continuous Recurrence/Cross Recurrence Demos
* **Lead Presenter:** TBA

**April 4th**

* **Agenda:** Speaker series
* **Speaker:** Adam Kiefer, University of North Carolina
* **Topic:** Modeling Performance in Sports using recurrence/cross-recurrence

**April 10th (Note: This is a Thursday)**

* **Agenda:** Full day Workshop (Save the date)
* **Theme:** Fractal/Multi-fractal Analyses
* **Presenter:** Dr. Damian Stephen

**April 11th**

* **Agenda:** Speaker series
* **Speaker:** Dr. Kelty-Stephens
* **Topic:** Work using fractal/multifractal methods

**April 18th**

* **Agenda:** Speaker series
* **Speaker:** Dr. Jay Holden (To be confirmed)
* **Topic:** Applications of fractal methods in Cognitive Science

**April 25th**

* **Agenda:** Speaker series
* **Speaker:** Robyn Wilford
* **Topic:** Ecological Approach to Memory