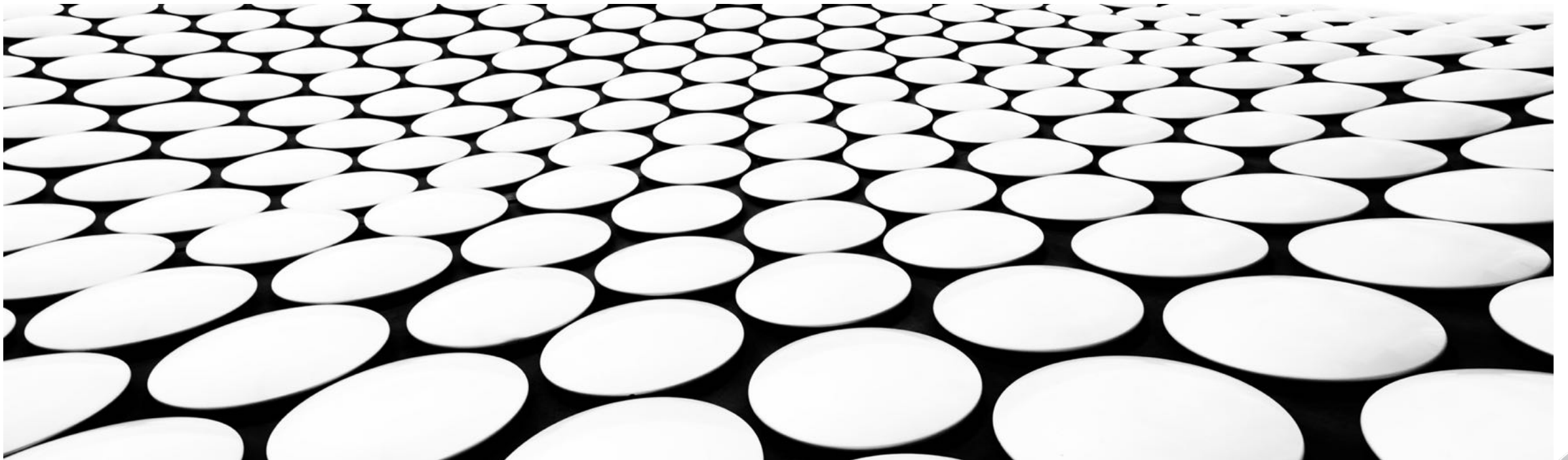

FOSTERING CRITICAL THINKING NEEDED TO GET STARTED WITH SPATIO-TEMPORAL DATA ANALYSIS

MEGAN HEYMAN, ROSE-HULMAN INSTITUTE OF TECHNOLOGY & ANNIE LINER, INDIANA STATE UNIVERSITY



SCENARIO:

- Space-time data
 - Abundant
 - Complex



Photo credit: German public broadcast service <https://www.youtube.com/watch?>



PROBLEM:

- Spatio-temporal analysis
 - Complex
 - Requires advanced training



REAL WORLD SPATIO-TEMPORAL DATA IN INTRODUCTORY STATISTICS

- Visualizing spatial and temporal dependencies
- Using statistical inferences
 - Paired means
 - Simple linear regression
- To facilitate examples, class activities, and assignments to foster multivariable thinking in the classroom.



BRINGING SPATIAL AND TEMPORAL DATA TO YOUR CLASSROOM

- Discussion
- Activities
 - Think-pair-share
 - Follow along with software
 - Clicker questions- online
 - Live chats
- Assignments
 - Replication of in-class exploration for homework
- Projects
 - Full data exploration on spatio-temporal data



CONCLUSION

- Discussion
- Examples
- Class activities
- Assignments
- Projects



COME TALK WITH US LIVE

THURSDAY 7/1 (2:30 – 3:30 EASTERN)!

Resources with specific data examples and discussion topics of spatio-temporal data in introductory statistics are available online:

<https://meganheyman.github.io/USCOTS2021.html>