Summer School “Introduction to Complex Systems 2020”

Location: Utrecht University, Utrecht Science Park, Utrecht, The Netherlands
Lecture Room: CCSS living room (Centre for Complex System Studies), Minnaert building 4.16, Leuvenlaan 4, 3584 CE Utrecht
Practical Room: Buys Ballot Building 065, Princetonplein 5, 3584 CC Utrecht
Dates: August 24-28 2020
Coordinator: Dr. ir. Qingyi Feng (E-mail: Q.Feng@uu.nl)

Monday August 24  Theme Emergence
9:30-10:30  “A general introduction on complex systems”, Dr. Qingyi Feng
10:30-11:00  Coffee/Tea break
11:00-12:15  “Emergent patterns and evolution of complexity in biology”, Prof. Paulien Hogeweg
12:15-13:15  Lunch
13:15-14:30  “Models of social segregation” Prof. Vincent Buskens
14:30-17:00  Practical on complexity in social systems, Prof. Vincent Buskens/Dr. Rense Cortens

Tuesday August 25  Theme Resilience & Robustness
9:30-10:45  “Complexity of Ocean Circulation”, Dr. Erik van Sebille
10:45-11:15  Coffee/Tea break
11:15-12:30  “Endogeneous dynamics and resilience in the financial system”, Dr. Giulia Piccillo
12:30-13:30  Lunch
13:30-21:00  Social activity and dinner

Wednesday August 26 Theme Transitions
9:30-10:45  “Transitions in ecosystems”, Prof. Max Rietkerk
10:45-11:15  Coffee/Tea break
11:15-12:30  “Transition behavior in human and natural systems”, Prof. Henk Dijkstra
12:30-13:30  Lunch
13:30-16:30  Practical on tipping in the climate system, Prof. Henk Dijkstra

Thursday August 27 Theme Control & Predictability
9:30-10:45  “Predictability and the dynamical information content of data”, Prof. Jason Frank
10:45-11:15  Coffee/Tea break
11:15-12:00  Introduction of the 4 hands-on-projects to choose from
12:00-13:00  Lunch
13:00-16:00  Working on projects
16:00-17:00  Presentation of project work
Friday August 28  Theme Applications
9:30-10:30  “A computational simulation model of human navigation in interactive environments”, Dr. Roland Geraerts
10:30-11:00  Coffee/Tea break
11:00-12:00  “Networks of networks in logistics”, Dr. Deb Panja
12:00-13:00  “Intermittent stochastic perturbations to dynamical systems: rainfall and forest fires”, Dr. Mara Baudena
13:00-14:00  Lunch & Goodbye