Emergence, as a major property of complex systems, appears in a variety of systems. However due to its intrinsic complexity and the fact that it only appears at runtime it is still a scientific unknown. Consequently in recent years multiagent simulation has been proposed as method to increase the scientific understanding of emergent phenomena. In this context a vital part of the exploration of emergence is the ability to detect and quantify a manifestation of the phenomenon in the system under study. As part of a larger study, aimed to explore the causal relations in herd formations, this presentation discusses the investigation of a developed mechanism for automated detection of herds. The proposed solution is based on fuzzy reasoning module which incorporates both bottom-up and top-down phases in order to reason about different aggregations of animals.

The seminar series is open to all members of staff and students of CITY and to public that wish to attend.