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Life is one of the most complex systems in this world, and still refusing our understanding so far, irrespective of huge advances in molecular biology. On top of that, intelligence is something we desire to understand too, but it can be far more complex than life itself. However, as witnessing recent advances in AI, we might be able to have a hope to abstract life and its intelligence in di erent, simpler views. In this small seminar, we would like to discuss this possibility, mainly using techniques of numerical modeling on several examples chosen.

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13:00 opening

13:00-13:50

Georg Martius (Max Planck Institute for Intelligent Systems) Can we extrapolate? Machine learning for equation identi cation

14:00-14:50

Harold Fellermann (School of Computing, Newcastle University) Selection dynamics in autocatalytic replicator chemistries

15:00-15:50

Yuichi Togashi (Department of Mathematical and Life Sciences, Hiroshima University) Structure and Small-Number Issues in Enzymatic Reaction Systems

16:00-16:50

Yoshihiro Yamazaki (Department of Physics, Waseda University) Statistical properties for directional alignment and chasing of players in football games

16:50 closing

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