

Session Program

24-28 May 2027



NOBEL SYMPOSIUM 215 — Beyond Boltzmann: Complexity, Memory, and Non-Additive Entropies

S6 · AI and data-rich complex systems beyond traditional physics

Bäckaskog slott, Conference room
Bäckaskog slott Barumsvägen 255 291 68 Fjälkinge, Sweden

Thursday 27 May

14:00

S6 · AI and data-rich complex systems beyond traditional physics: Chair: Tiziana Di Matteo · Rapporteur: Henrik J. Jensen

Session |

Location: Bäckaskog slott, Conference room, Bäckaskog slott Barumsvägen 255 291 68 Fjälkinge, Sweden

14:00–14:30

Tsallis α -entropies in machine learning: entmax, sparse attention and Fenchel-Young losses

Speaker

André F. T. Martins

14:30–15:00

Nonlinear dynamics and machine learning for prediction in complex systems

Speaker

Ying-Cheng Lai

15:00–15:30

S6 discussion 1

15:30–16:00

Coffee break (S6)

16:00–16:30

Invited contribution — title and speaker to be confirmed

16:30–17:00

Heavy tails and scaling in data-rich ecosystems: financial markets, company transaction networks and gut microbiome

Speaker

Misako Takayasu

17:00–17:30

Nonextensive statistical seismology: criticality, hazards and decisive observables

Speaker

Filippos Vallianatos

17:30–18:00

S6 discussion 2

18:00