



Sunday, June 28

17:00 – 22:00

Registration and Welcome Snack

Monday, June 29

Chair: S.Thurner

08:30 – 09:00

E. Dreisigacker
H. M.-Ortmanns, S.
Thurner

Opening

09:00 – 10:15

K. Sigmund I

Tba

10:15 – 10:45

Coffee break

10:45 – 12:00

P. Schuster I

**Modeling of evolutionary processes:
evolution from the viewpoint of
physicists ***

12:00 – 13:30

Lunch break

Chair: P. Schuster

13:30 – 14:45

B. Derrida I

**Genealogy in neutral models of
evolution ***

14:45 – 15:00

Break

15:00 – 16:15

R. Blythe I

**Stochastic neutral models as a diffusion
and a genealogical process***

16:15 – 16:45

Coffee break

16:45 – 18:00

K. Kaneko I

**Catalytic networks: Evolvability and
reproduction of cells**

18:00 -

Dinner

Tuesday, June 30

Chair: P. Bastiaens

09:00 – 09:45

P. Schuster II

**Major and minor transitions in evolution

09:45 – 11:00

S. Jain I

**From randomness to complexity in
chemical networks**

11:00 – 11:15

Coffee break

11:15 – 12:30

M. Paczuski I

Concepts of self-organized criticality

12:30 – 14:15

Lunch break

Chair: S. Jain

14:15 – 15:30

P. Bastiaens I

Self-organization of cells: review

15:30 – 16:15

B. Derrida II

Effect of selection on genealogies *

16:15 – 16:45

Coffee break

16:45 – 17:30

R. Blythe II

**Applications in ecology, cultural change
and linguistics***

17:30 – 18:45

C. Kiefer I

The need for quantum cosmology

18:45 - Dinner

Wednesday, July 1 **Chair: D. Lancet**

08:30 – 09:15 C. Kiefer II **Emergence of cosmological structure from quantum fluctuations**

09:15 – 10:00 K. Sigmund II **Evolutionary game theory**

10:00 – 10:30 Coffee break

10:30 – 11:45 E. Frey I **Evolutionary game theory: time evolution of interacting strategies**

11:45 – 13:30 Lunch break

Chair: E. Frey

13:30 – 14:15 P. Bastiaens II **Self-organization of the mitotic spindle**

14:15 – 15:30 D. Lancet I **Prebiotic evolution: a lipid world or an RNA-world?***

15:30 – open end Social Program with Dinner

Thursday, July 2 **Chair: M. Bartelmann**

09:00 – 09:45 M. Paczuski II **Concepts of self-organized criticality**

09:45 – 10:00 Coffee break

10:00 – 11:15 D. Chowdhury I **Evolution of intracellular transport system: cytoskeletal motors**

11:15 – 12:00 E. Frey II **Rock-paper-scissor games in evolution**

12:00 – 13:45 Lunch break

Chair: M. Paczuski

13:45 – 14:30 D. Lancet II **Computer based simulations of prebiotic evolution**

14:30 – 14:45 Break

14:45 – 16:00 M. Bartelmann I **Structure formation in the universe**

16:00 – 16:30 Coffee break

16:30 – 17:30 Panel discussion

18:00 - Dinner

Friday, July 3 **Chair: K. Kaneko**

09:00 – 10:15 H. Fellermann I **Artificial life: on the construction of artificial living systems**

10:15 – 10:30 Coffee break

10:30 – 11:45 P. Schwille I **Artificial life**

11:45 – 12:30 S. Jain II **Rules of growth and selection***

12:30 – 14:15 Lunch break

Chair: H.

	Fellermann	
14:15 – 15:00	D. Chowdhury II	Evolution of intracellular synthesizers: polymerases and ribosomes
15:00 – 15:45	K. Kaneko II	Evolution to robustness to noise and mutation in gene expression dynamics
15:45 – 16:00	Coffee break	
16:00 – 16:45	P. Schwillie II	The bottom-up approach of constructing artificial cells
16:45 – 17:30	G. Schütz I	Exact solution of the Bernoulli matching model of sequence alignment*
17:30 – 18:30	Panel discussion	
19:30 -	Barbecue	

Saturday, July 4

	Chair: B. Kahng	
09:00 – 09:45	H. Fellermann II	Artificial life: on the construction of artificial living systems
09:45 – 11:00	S. Thurner I	Emergence and innovation in evolutionary systems
11:00 – 11:15	Coffee break	
11:15 – 12:30	G. Schütz II	The intelligent design movement: dangerous, harmless or what else? *
12:30 – 14:00	Lunch break	
	Chair: G. Schütz	
14:00 – 14:45	M. Bartelmann II	Structure formation in the universe
14:45 – 15:00	Coffee break	
15:00 – 16:15	H. Kippenberg	Darwin's theory of evolution and the construction of the history of religions
16:15 – 16:45	B. Obermayer	Error thresholds for self- and cross-specific enzymatic replication
16:45 – 17:45	Panel discussion	
18:00 -	Dinner	

Sunday, July 5

	Chair: H. M.-Ortmanns	
09:00 – 09:20	A. Kamimura	Formation of units in simple catalytic processes*
09:20 – 10:10	B. Kahng	Evolutions of the co authorship network and the protein interaction network*
10:10 – 10:40	Coffee break	
10:40 – 11:30	S. Thurner II	Emergence and innovation in evolutionary systems
12:15	Departure after lunch	

*confirmed titles as proposed by the speakers

