



“Piero Caldirola” International Centre for the promotion of Science and International School of Plasma Physics

EVOLVABILITY : THE EVOLUTION OF EVOLUTION

Varenna, Villa Monastero, Italy

April 15 – 17, 2007

SATURDAY PM --- PARTICIPANTS ARRIVE

20:00

dinner at the Hotel Royal Victoria

21:30

Welcome party at the Hotel Royal Victoria

SUNDAY 15 April

9:00

Registration and Welcome coffee

9:20

Welcome

9:40-10:40

Marc Kirschner

Facilitated Variation

10:40-11:40

Andreas Wagner

Exploration of Evolvability in model regularity networks

11:40-12:40

Mike Deem

Spontaneous Emergence of Modularity in a Model of Evolving Proteins

12:40-14:00

lunch at the Hotel Villa Cipressi

14:00-15:00

Ralf Sommer

Evolution of a Developmental trait: the Nematode Vulva

15:00-16:00

Robert Reenan

The Fine-Tuning of Genetics and Natural Selection

16:00-16:30

coffee break

16:30-17:30

Lynn Helena Caporale

The Evolution of Evolution: Towards a Genomic Synthesis for Evolutionary Theory

17:30-18:10

– discussion session 1 (**Simon Conway Morris**)

optional further discussion

20:00

Conference Dinner at the Hotel Royal Victoria

MONDAY 16 April

8:40-9:40

Richard Lenski

Evolvability and robustness: experiments with bugs and bytes.

9:40-10:40

James Shapiro

Natural Genetic Engineering & Non-Random Processes in Genome Evolution

10:40-11:00

coffee break

11:00-12:00

Uri Alon

Rapid Evolution of Modular Structure under Goals that vary in time in a modular fashion

12:00-12:40

discussion session 2 (**Wilson Poon**)

12:40-14:00

lunch at the Hotel Villa Cipressi



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14:00–15:00	Sarah Teichmann <i>Evolvability and Protein Divergence in the Evolution of Homo Sapiens</i>
15:00–16:00	Frances Arnold <i>Hidden dimensions in Protein Evolution: Stability, Mutational Robustness and Evolvability</i>
16:00 – 16:30	<u>coffee break</u>
16:30 – 17:30	Amos Maritan <i>Statics and Dynamics of Ecosystems</i>
17:30 – 18:10	Discussion session 3 (Ard Louis and Jonathan Doye) optional further discussion
19:00	<u>dinner at the Hotel Royal Victoria</u>
21:30	<u>choir concert at Villa Monastero</u>

TUESDAY 17 April

8:40 – 9:40	Martin Nowak <i>Cooperation and evolvability</i>
9:40 – 10:40	Christopher Adami <i>A Mechanism for Drastically Fluctuating Genomic Evolution: From Digitals to the Cambrian explosion and Back</i>
10:40–11:00	<u>coffee break</u>
11:00 – 12:00	Nigel Goldenfeld <i>The Evolution of the Genetic Code</i>
12:00 – 12:40	– discussion session 4 – (L. Mahadevan)
12:40–14:00	<u>lunch at the Hotel Villa Cipressi</u>
14:00–15:00	Günter Wagner <i>How does Selection affect Evolvability ?</i>
15:00 – 15:40	summary discussion session – (William Wimsatt)
15:40	<u>final coffee break</u>
19:00	<u>dinner at the Hotel Royal Victoria</u>
21:15	Popular Conference at the ‘Teatro della Società’ in Lecco – S. Conway Morris and F.Facchini