

Models in physics and cosmology, Helsinki 27-28.9.2010

The Finnish Society for Natural Philosophy arranges a two day International seminar on “Natural philosophy and the philosophy of sciences” with special theme “Models in physics and cosmology”. The seminar will take place in Helsinki on September 27-28, 2010.

Program

Monday 27.9.2010

“Towards a unified picture of physical reality: From local to whole or from whole to local?”

Chairman: [Prof. Arto Annila](#)

9:00 Registration, Coffee

9:15 Welcome, opening - Dr. Viljo Martikainen, Chairman of the Finnish Society for Natural Philosophy

Arto Annila, objectives of the seminar, from postulates to predictions and a picture of reality, Introduction of speakers and the structure of the seminar program.

9:30 [Dr. Akira Kanda](#), Omega Mathematical Institute, *Empiricism v.s. Logicism* ([abstract](#), [full paper](#)) Comments Arto Annila / Discussion

10:45 Break

11:00 [Dr. Tarja Kallio-Tamminen](#), Physics Foundations Society, *Significance of a comprehensible picture of reality* ([abstract](#), [presentation slides](#))

Comments Dr. Sorin Paroanu / Discussion

12:00 Lunch

13:00 [Prof. Kari Rummukainen](#), University of Helsinki, *What do we know about the early Universe* ([abstract](#))

Comments Dr. Pekka Janhunen / Discussion

14:00 [Prof. C. S. Unnikrishnan](#), Tata Institute of Fundamental Research, Mumbai, *The Cosmological Basis of Physical Reality* ([abstract](#))

Comments Dr. Heikki Sipilä / Discussion

15:15 Break

15:30 [Dr. Tuomo Suntola](#), Physics Foundations Society, *The Dynamic Universe – from whole to local* ([abstract](#), [presentation slides](#))

Comments Dr. Pekka Janhunen, Dr. Johan Silén / Discussion

16:45 – 17:30

Debate: What is the key to the unification of theories and to a holistic view of physical reality? Akira Kanda, Tarja Kallio-Tamminen, Kari Rummukainen, C.S. Unnikrishnan, Tuomo Suntola. Moderator Arto Annila.

18:00 Reception hosted by Helsinki City, Helsinki City Hall

Tuesday 28.9.2010

“The picture of reality”

Chairman: [Dr. Heikki Sipilä](#)

9:00 [Dr. Peter Rowlands](#), University of Liverpool, *Development towards the present understanding of physical reality* ([abstract](#))

Comments Prof. emeritus Kaarle Kurki-Suonio / Discussion

10:30 Break

10:45 [Doc. Ismo Koponen](#), University of Helsinki, *Models and Modelling in Physics: From Maxwell to Present Days* ([abstract](#), [full paper](#))

Comments Dr. Tarja Knuuttila / Discussion

12:00 Lunch

13:30 [Prof. C. S. Unnikrishnan](#), Tata Institute of Fundamental Research, Mumbai, *Indian tradition in natural sciences and the philosophy of science* ([abstract](#))

Comments Tuomo Suntola / Discussion

14:40 Break

15:00 [Prof. Arto Annala](#), University of Helsinki, *World view guided by least action* ([abstract](#), [presentation slides](#))

Comments Ismo Koponen / Discussion

16:15 Debate: Criteria for successful theories: From intelligible postulates to precise predictions?

Peter Rowlands, Ismo Koponen, Arto Annala, Akira Kanda, Kaarle Kurki-Suonio.
Moderator Heikki Sipilä.