# IOC autumn seminar 2014

## Tuesday, 9.12

### 10.30 Welcome coffee

- **11.00 1st session** Control systems, speech technology, system biology (24 minutes per presentation)
  - Martin Laasmaa Calcium Fluxes in Heart Cells
  - Rikke Birkedal Getting to the heart of the matter: Do we need creatine for energy transfer?
  - Tanel Mullari
    Geometric control for a nonlinear sampled data system
  - Arvo Kaldmäe
    Integrability conditions for nonlinear time-delay control systems
  - Ottokar Tilk
    Multi-domain neural network language models
- 13.00 Lunch
- 14.30 2nd session Nonlinear dynamics (2 hours in total)
  - Jüri Engelbrecht On interdisciplinarity
  - Heiko Herrmann
    Short Fibre Composites and Virtual Reality
  - Dmitri Kartofelev Kymographic imaging of vibrating strings
  - Robert Kitt
    Economic decision-making: an application of complex systems

### 16.30 Coffee

### 17.00 3rd session (in estonian)

- Andrus Salupere Elust Kübls ja TTÜs
- Lauri Vahtre Eestlaste ajaarvamine ja kalender – nüüd ja minevikus

### 19.30 Christmas dinner, quiz

Sauna

## Wednesday, 10.12

10.00 4th session - Software (2 hours in total)

- Enn Tõugu Information and knowledge
- Silvio Capobianco
  A short introduction to coinduction
- Andres Ojamaa Simulation in Cyber Security
- Denis Firsov
  Functional incremental computing
- 12.00 Lunch
- **13.30** 5th session Wave engineering (1.5 hours in total)
  - Tomas Torsvik
    Recent developments in data analysis of surface current measurements
  - Artem Rodin
    Ship-induced solitary Riemann waves of depression in Venice Lagoon
  - Katri Pindsoo
    Quantification of the impact of vessel wakes on the transport of coarse sediment
  - Maris Eelsalu
    Intermittency of the wave energy flux in the eastern Baltic Sea

#### 15.30 Bus leaves