

# Program Schedule



Complex Systems 08

CRP Lavin

Friday, 18.01.

Saturday, 19.01.

Sunday, 20.01.

Monday, 21.01

Tuesday, 22.01

Arrival

Workshop

Workshop

Workshop

Workshop

9.00-12.15  
Morning session

9.00-12.15  
Morning session

9.00-12.15  
Morning session

9.00-12.15  
Morning session

Registration  
14.00-18.00 CRP Lavin

15.00-19.00  
Afternoon session

13.58-19.00  
Excursion

15.00-19.00  
Afternoon session

Departure



German/ South  
american evening  
Hang around the bar as  
the germans do

Dinner at Hotel Crusch  
Alba.

Welcome reception at  
the snowbar (around  
19.30)

Village sightseeing



Italian evening  
Enjoy italian food, drinks  
and music.

Dinner at Hotel Crusch  
Alba.

Caffe, dolce and grappa  
at the fireside.



Russian evening  
Celebration of the 60.  
birthday of  
L.A. Bunimovich:  
Sleigh ride in Klosters.  
Birthday Apero at Alp  
Garfiun.

Dinner at Hotel Crusch  
Alba.



Swiss evening  
From tradition to advent-  
ture

Fondue at Hotel Crusch  
Alba.  
Live Swiss Folk music.

For the fearless:  
Night sledging in Lavin.



## Saturday, 19.01.08

### Morning Session 1

Chair: H. Herrmann

- 9.00-9.45 R. Stoop  
Talk title: Communication networks: Sex, flies and videotapes
- 9.45-10.30 A. Politi  
Talk title: Exact stability analysis and synchronization properties of neural networks.

### Coffee

### Morning Session 2

Chair: O. Piro

- 10.45-11.30 N. Corron  
Talk title: Synthesizing chaos without nonlinear dynamics
- 11.30-12.15 S. Stramaglia  
Talk title: Analysis of complex systems by Granger causality

### Lunch

### Afternoon Session 1

Chair: M. Opper

- 15.00-15.45 H. Herrmann  
Talk title: Space-filling bearings
- 15.45-16.30 B. Kappen  
Talk title: Complexity in stochastic control
- 16.30-17.15 R. Klages  
Talk title: Active Brownian particles and Nose-Hoover thermostats

### Coffee

### Afternoon Session 2

Chair: B. Kappen

- 17.30-18.15 M. Opper  
Talk title: Approximate inference for partly observable continuous time Markov processes
- 18.15-19.00 H. Katzgraber  
Talk title: Spin glasses: Still frustrating after all these years?



## Sunday, 20.01.08

### Morning Session 1

Chair: S. Stramaglia

9.00-9.45 S. Boccaletti  
Talk title: Synchronization in complex networking systems

9.45-10.30 L. Glass  
Talk title: Using logical circuits to analyze and model genetic networks

### Coffee

### 60. Birthday Lectures

Chair: R. Stoop

10.45-11.45 L. A. Bunimovich  
Talk title: Dynamical networks: Interplay of topology, interactions and local dynamics

11.45-12.45 C. Grebogi  
Talk title: Modelling ionic homeostasis in bacteria

### Lunch

### Excursion

13.58 Train departure in Lavin  
(don't miss!!)

- Horse sleigh ride in Klosters
- Birthday apero in Alp Garfiun

17.34 / 18.34 Train departure in Klosters



## Monday, 21.01.08

### Morning Session 1

Chair: A. Politi

9.00-9.45 O. Piro

Talk title: Left or Right? Follow the flow!: Hydrodynamical basis of the lateralization of developing embryos

9.45-10.30 V. Nekorkin

Talk title: Map-based model of neural activity

### Coffee

### Morning Session 2

Chair: S. Boccaletti

10.45-11.30 J. Kurths

Talk title: Complex Networks - a fashionable topic or a useful one?

11.30-12.15 T. Sauer

Talk title: Network dynamics and causality

### Lunch

### Afternoon Session 1

Chair: J. Kurths

15.00-15.45 A. Loskutov

Talk title: Billiards: New results

15.45-16.30 U. Feudel

Talk title: Aggregation and fragmentation of finite size particles in chaotic advection

16.30-17.15 T. Shinbrot

Talk title: Pattern formation in charged grains

### Coffee

### Young Researcher Session 1

Chair: H. Katzgraber

17.30-17.50 T. Ott

The perceptron revisited: Belief forward and back propagation

17.50-18.10 N. Stoop

Morphological phases of crumpled wires

18.10-18.30 B. Surer

Ground state studies of the three dimensional Coulomb glass

18.30-18.50 T. Jasa

Monte carlo methods for Bayesian estimation in acoustics



## Tuesday, 22.01.08

### Young Researcher Session 2

Chair: J. Soares

9.00-9.20	Y. Uwate	Synchronization in a ring of van der Pol oscillators
9.20-9.40	S. Martignoli	Cochlea modeling by an array of subcritical Hopf amplifiers
9.40-10.00	J. Bartussek	Catch me if you can – Flight control in flies
10.00-10.20	M. Schüle	A nonlinear dynamics view on cellular automata

### Coffee

### Morning Session 2

Chair: N. Corron

10.45-11.30	J. Soares	Applications of complex networks: Packings, elections and nanotechnology
Talk title:		
11.30-12.15	M. Dahlem	Failure of feedback as a putative common mechanism of spreading depolarizations in migraine and stroke
Talk title:		

### Lunch

Farewell note by R. Stoop

