

**Symposium in honour of
Rafael Barrio's 60th birthday**

Dynamical behaviour of complex systems

Cocoyoc, Mexico September 23&24, 2010

September 23, 2010

8:50 Welcome address (*Julia Tagüeña*)

Session 1

Chair *José Luis Aragón, Chair*

9:00 Sir Roger Elliott (University of Oxford, UK)

30 Years of Networking with Rafael

9:30 Kimmo Kaski (Aalto University, Helsinki, Finland)

Co-evolution of complex friendship and network, and all odds of it

10:00 Carlos Balseiro (Comisión Nacional de Energía Atómica, Argentina)

Electronic transport through magnetic molecules

10:30 Chumin Wang (INM, UNAM, Mexico)

Renormalization approach to the Kubo-Greenwood formula in quasiperiodic systems

Coffee break

Session 2 *Rosario Paredes, Chair*

11:30 Carmen Varea (IFUNAM, Mexico)

Multiphase field models

12:00 Matthiew Micoulaut (Université Pierre et Marie Curie, Paris 6, France)

Maxwell constraint counting when the 8-N rule does not hold

12:30 Richard Kerner (Université Pierre et Marie Curie, Paris 6, France)

Evolution of local structures in alkali-borate glasses: the Volterra approach

13:00 Cecilia Ventura (Comisión Nacional de Energía Atómica, Argentina)

Non-substitutional Sn defects in Ge_{1-x}Sn_x alloys for opto- and nanoelectronics

13:30 Lunch (for all participants)

Session 3 *Gerardo García Naumis, Chair*

15:30 Aurora Hernández Machado (Universidad de Barcelona, España)

Interface dynamics in microfluidics: theory and experiments

16:00 Robin Stinchcombe (University of Oxford, UK)

Critical behaviour in Confined and Trapped Systems

- 16:30 Julia Tagüeña (CIE, UNAM, Mexico)
Porous silicon photonic structures
- 17:00 Alberto Robledo (IFUNAM, Mexico)
Statistical mechanics of first-digit and rank-size distributions
- 17:30 Gudmundur Haraldsson (University of Iceland, Iceland)
Grandma was right! The wonders of marine lipids
- 18:00 Dinner (for all participants)
- 19:00 Chamber Music (Rafael Barrio & friends)

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Session 4 Limei Zhang, Chair

- 9:00 Marco José (CICC, MEXICO)
Some examples of Complex Systems in Biology
- 9:30 Elena Álvarez-Buylla (Instituto de Ecología, UNAM)
Genes, epigenetics landscapes and morphogenesis of flowers
- 10:00 Limei Zhang (Facultad de Medicina, UNAM, Mexico)
Vulnerability of network topology during development: perinatal stress impacts brain function in adulthood
- 10:30 Ruben Barrera (IFUNAM, MEXICO)
Effective properties of disordered media

Coffee break

Session 5 Julia Tagüeña, Chair

- 11:30 José de la Herrán (Universum, UNAM, Mexico)
Rafael Barrio - un amigo entrañable
- 12:00 **Concluding remark by the celebrated**
 Rafael Barrio (IFUNAM, Mexico)
- 13:00 Banquet (for all participants)

Organisers:

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