

Dynamics Days South America 2010

Program Schedule

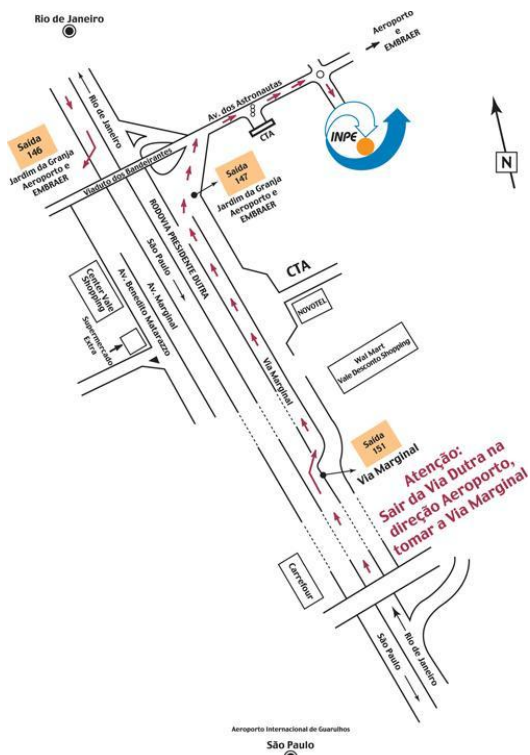
July 26 – 30, 2010

São José dos Campos, São Paulo, Brazil

Staff

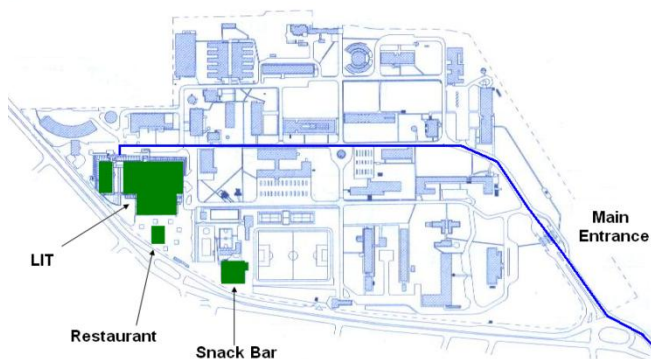
Maria Cristina Braga Peloggia
 Ana Mônica Gerônimos de Souza
 Anelize Souza Condino
 Eliana Chaves Peloggia
 Luiz Felipe Ramos Turci
 Mônica Aparecida de Oliveira
 Rita Aparecida da Costa
 Rodolfo Maduro Almeida
 Thais Cristina Santos

How to get INPE from Rio de Janeiro or São Paulo



INPE Campus

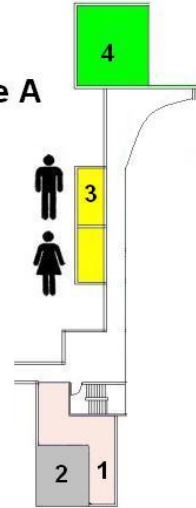
MAP of INPE Area



LIT Auditoriums

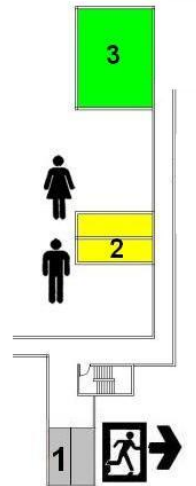
Ground Floor - Torre A

- 1 - Building Entrance
- 2 - Elevator
- 3 - Toilets
- 4 - S1 Auditorium



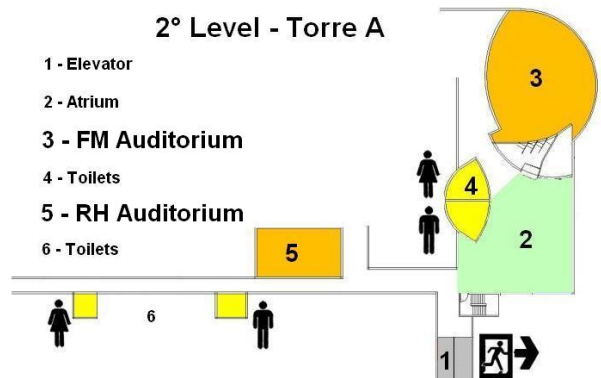
1° Level - Torre A

- 1 - Elevator
- 2 - Toilets
- 3 - SC Auditorium



2° Level - Torre A

- 1 - Elevator
- 2 - Atrium
- 3 - FM Auditorium
- 4 - Toilets
- 5 - RH Auditorium
- 6 - Toilets



General Program – Sessions

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIEDAY
08:30 – 08:45	Registration	P9 (L. Pecora)	P18 (A. Motter)	P27 (J. Kurths)	P36 (Ying-Cheng Lai)
08:45 – 09:05	Open				
09:05 – 09:35	P1 (E. Ott)	P10 (A. Ozorio)	P19 (S. Cannas)	P28 (M. Baptista)	P37 (R. Stoop)
09:35 – 10:05	P2 (E. Rosa)	P11 (P. Cincotta)	P20 (M. Chevrollier)	P29 (P. Morrison)	PT_3
10:05 – 10:35	P3 (L. Torres)	P12 (C. Giordano)	P21 (C. Otto)	P30 (P. McClintock)	
10:35 – 11:00	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11:00 – 12:40	S1 S2 S3 S4	S5 S6 S7 S8	S9 S10 S11 S12	S13 S14 S15 S16	S17 S18 S19 S20
12:40 – 14:30	Lunch	Lunch	Lunch	Lunch	Lunch
14:30 – 15:05	P4 (A. Colman_Lerner)	P13 (R. Meucci)	P22 (H. Weber)	P31 (L. Mariconi)	P38 (M. Parrilo)
15:05 – 15:35	P5 (G. Mindlin)	P14 (F. Barra)	P23 (R. Egdio)	P32 (I. János)	S21 C17 C18
15:35 – 16:05	P6 (F. Ghezzi)	P15 (J. Castaño)	P24 (K. Krisher)	P33 (C. Masoller)	
16:05 – 16:25	Coffee break	Coffee break	Coffee break	Coffee break	16:40 Coffee break
16:25 – 17:25	C1 C2 C3 C4	C5 C6 C7 C8	C9 C10 C11 C12	C13 C14 C15 C16	17:00 Closing Section
17:25 – 18:00	P7 (S. Sinha)	P16 (C. Salazar)	P25 (C. Anteneodo)	P34 (M. Aguiar)	
18:00 – 18:30	P8 (J. Tredicce)	P17 (M. Copelli)	P26 (P. Mendes)	P35 (M. Clerc)	
18:30 – 20:30			PT_1	PT_2	

P: Plenary talk; **S:** Minisymposium; **C:** Contributive talk; **PT:** Poster Session

Monday – July, 26th

Morning

8:30 – 8:45 Registration
8:45 – 9:05 Open Ceremony
9:05 – 10:35 Plenary Sessions
Auditorium FM

Chair: Jason Gallas

9:05 – 9:35 [P 01: Edward Ott](#)
Emergent Behavior in Large Systems of Coupled Phase Oscillators
9:35 – 10:05 [P 02: Epaminondas Rosa](#)
Alternating Synchronization in Coupled Chaotic Oscillators
10:05 – 10:35 [P 03: Leonardo A. B. Torres](#)
Energy Based Analysis of Dynamical Systems Synchronization

10:35 – 11:00 Coffee-Break
11:00 – 12:40 Parallel Sessions / Mini-Symposia

[S01 – The Brain and its Functioning](#)
Auditorium S1

Organizers: Antonio Roque da Silva Filho, Hilda A. Cerdeira and Koichi Sameshima³
Speakers: Mauro Copelli, Koichi Sameshima, Roland Köberle

[S02 – The Structure of Dynamics Networks](#)

Auditorium FM

Organizer: Francisco Aparecido Rodrigues
Speakers: Francisco Aparecido Rodrigues, Paulino Ribeiro Villas Boas, Gonzalo Travieso, Luiz Felipe R. Turci

[S03 – Synchronization and Collective Behavior in Network](#)

Auditorium RH

Organizer: Mario G. Cosenza
Speakers: O. Alvarez-Llamoza, Arturo C. Martí, Marcus Werner Beims, Jason A., Gallas, Mario G. Cosenza

[S04 – Nonlinear Aeroelasticity](#)

Auditorium SC

Organizer: Roberto Barroso Ramos
Speakers: Roberto Ramos, Cayo Prado Fernandes Francisco, André Fenili, Kleber A. L. Castão,

12:40 – 2:30 PM – Lunch

Afternoon

2:30 PM – 4:05 PM Plenary Sessions

Auditorium FM

Chair: Silvina P. Dawson

2:30 PM – 3:05 PM [P 04: Alejandro Colman-Lerner](#)

Signal propagation, information transmission and cell to cell variation during the activation of the S. cerevisiae pheromone response pathway,

3:05 PM – 3:35 PM [P 05: Gabriel B. Mindlin](#)

Physiology and dynamics of birdsong production,

3:35 PM – 4:05 PM [P 06: Flavio Ghezzi](#)

Loops, mesostructures and fractals

4:05 PM – 4:25 PM Coffee Break

4:25 PM – 5:25 PM Parallel Sessions / Contributive Talks

4:25 PM – 5:25 PM [C 01 Neuronal Dynamics](#)

Chair: Hilda Cerdeira

Auditorium: RH

Fabio Schittler – “Computation by heteroclinic switching”

Everton Agnes – “Model architecture for pattern recognition and discrimination in a neural network of

spiking neurons”
Jaime Cisternas – “Bifurcations of smooth and lurching waves in a thalamic neuronal network”
Fabiano Ferrari – “The Skew Tent Map Entropy Production”

4:25 PM – 5:25 PM [C 02 Complex Network](#)

Chair: Tiago Pereira

Auditorium: FM

Tiago Pereira – “Hub Synchronization in Large Scale-Free Networks”
Luiz Felipe R. Turci – “Adaptive Node-to-Node Pinning Control of Complex Networks”
Rodrigo Pereira – “Effective dynamics for chaos synchronization in networks with time-varying topologies”.

Vadas Gintautas – “Identification of functional information subgraphs in complex networks”

4:25 PM – 5:25 PM [C 03 Population and Dynamics](#)

Chair: Marcus Aguiar

Auditorium: SC

Marcus de Aguiar – “Neutral Speciation in Spatially Distributed Populations”
Evaldo de Oliveira – “Solving the Levins' paradox in the logistic map of population growth”
Juliana Kodaira – “The basic reproduction number in SI staged progression model: a probabilistic approach”

Gerard Olivar – “Sustainable Development Through Complex Networks”

4:25 PM – 5:25 PM [C 04 Applications in Nonlinear Sciences](#)

Chair: Murilo Baptista

Auditorium S1

Carlos Pando – “Isolas of periodic orbits in a molecular model of a laser with a saturable absorber”
Danny Carrera – “Influence of damping in the long term behavior of a cardanically suspended body”
Bruno Batista – “The effect of poisoning species on the oscillatory dynamics of a surface catalyzed reaction”

Gerard Gomes – “A note on the dynamics of ferroelectric liquid crystals”

5:25 PM – 6:30 PM Plenary Sessions

Auditorium FM

Chair: Hilda Cerdeira

5:25 PM – 6:00 PM [P 07: Sudeshna Sinha](#)

Logical Stochastic Resonance

6:00 PM – 6:30 PM [P 08: Jorge Tredicce](#)

From Vortices to Localized Structures in OpticsT

Tuesday – July, 27th

Morning

8:30 – 10:35 Plenary Sessions

Auditorium FM

Chair: Carlos L. P. Lambruschini

8:30 – 9:05 [P 09: Lou Pecora](#)

Regularization of Tunneling Rates with Chaos.

9:05 – 9:35 [P 10: Alfredo Ozorio](#)

Threshold for generating quantum interferences in open chaotic systems.

9:35 – 10:05 [P 11: Pablo Cincotta](#)

Chaotic diffusion in multidimensional Hamiltonian systems.

10:05 – 10:35 [P 12: Claudia M. Giordano](#)

Chaotic diffusion in multidimensional conservative systems.

10:35 – 11:00 Coffee-Break

11:00 – 12:40 Parallel Sessions / Mini-Symposia

[S05 – Chaos and Transport in Hamiltonian Systems](#)

Auditorium S1

Organizer: Pablo Miguel Cincotta

Speakers: Francisco Salazar; Maffione, Nicolás; Darriba, L.A.

[S06 – Neuronal Dynamics](#)

Auditorium FM

Organizers: Thiago Pereira, Rafael Dias Viela

Speakers: Rafael Dias Vilela, Vladimir R. V. Assis, Markus Dahlem

Thiago Pereira

[S07 – Bifurcations of Non-Smooth Systems](#)

Auditorium RH

Organizer: Gerard Olivar Tost

Speakers: Carlos M. Escobar, Johan M. Redondo, Gustavo A. Osorio,

[S08 – Clock Distribution Systems](#)

Auditorium SC

Organizer: José Roberto Castilho Piqueira

Speakers: J. R. C Piqueira, R. Carareto, F. M. Orsatti

12:40 – 2:30 PM – Lunch

Afternoon

2:30 PM – 4:05 PM Plenary Sessions

Auditorium FM

Chair: Edson Denis Leonel

2:30 PM – 3:05 PM [P 13: Riccardo Meucci](#)

Chaotic dynamics in class B-lasers past and future perspectives

3:05 PM – 3:35 PM [P 14: Felipe Barra](#)

Propagating Modes in a Diffusive Periodic Waveguide.

3:35 PM – 4:05 PM [P 15: Jose Daniel Muñoz](#)

[Castaño](#)

Modeling with Cellular Automata and Lattice Boltzmann.

4:05 PM – 4:25 PM Coffee Break

4:25 PM – 5:25 PM Parallel Sessions / Contributive Talks

4:25 PM – 5:25 PM [C 05 Synchronization](#)

Chair: Luiz Felipe R. Turci

Auditorium: FM

Gonzalo Marcelo Ramírez Ávila- “Transients and Arnold tongues for synchronized electronic fireflies”.

Hassan El-Nashar – “The role of periodic boundary conditions on the synchronization of coupled oscillators in a ring”.

Armando Ticona – “Synchronization conditions in two coupled pendulums”.

Josue Fonseca – “Instabilities in coupled Huygens pendula”.

4:25 PM – 5:25 PM [C 06 Bifurcation Theory and Applications](#)

Chair: Iberê Caldas

Auditorium: RH

Eulo Balvedi Jr. – “Bifurcation Analysis of a Typical Section with Control Surface Freeplay”.

Gerard Olivar – “A Novel Non-Smooth Bifurcation in a Chemical Process DAEs System”.

Caroline Martins – “Robust Tori in a Double-Waved Hamiltonian Model”.

Ian Ford – “Entropy generation (and reduction) in a thermomechanically driven simple harmonic oscillator”.

4:25 PM – 5:25 PM [C 07 Hamiltonian Systems and Billiards](#)

Chair: Ricardo Egidio de Carvalho

Auditorium: SC

Alexander Loskutov – “Superdiffusion in time-dependent open horizon billiards”.

Edson Denis Leonel – “Suppressing Fermi acceleration in oval like driven billiards”.

Jose Salas – “Dividing surfaces and reaction rates in the $H+H_2 \rightarrow H_2+H$ chemical reaction”.

Turgay Uzer – “Intense-Laser Double Ionization: Insights from Nonlinear Dynamics”.

4:25 PM – 5:25 PM [C 08 Time Series Analysis](#)

Chair: Reinaldo Roberto Rosa

Auditorium S1

Marcus Silva – “Decentralized observer for a class of nonlinear norm bounded systems”.

Lucas Uzal – “Optimal irregular delay embeddings”.

Pablo Balenzuela – “A simple conceptual model to interpret the 100000 years dynamics of paleo-climate records”.

Frank Raischel – “Reconstruction and Predictability of Stochastic Processes”

5:25 PM – 6:30 PM Plenary Sessions

Auditorium: FM

Chair: Luiz de Siqueira Martins

5:30 PM – 6:00 PM [P 16: Carlos Enrique Mejia](#)

Stable coefficient identification by mollification.

6:00 PM – 6:30 PM [P 17: Mauro Copelli](#)

Physics of Psychophysics: contributions from Statistical Mechanics to Neuroscience.

Wednesday – July, 28th

Morning

8:30 – 10:35 Plenary Session

Auditorium FM

Chair: Iberê Luiz Caldas

8:30 – 9:05 [P 18: Adilson E. Motter](#)

Network Compensatory Perturbations: The Key to Rescue and Control the Dynamics of Complex Systems.

9:05 – 9:35 [P 19: Sergio Alejandro Cannas](#)

Emergent complexity in natural networks out of stability selection pressure.

9:35 – 10:05 [P 20: Martine Chevrollier](#)

Radiation trapping and Lévy flights of photons in atomic vapors.

10:05 – 10:35 [P 21: Christian Otto](#)

Complex Dynamics of Semiconductor Quantum-Dot Lasers subjected to.

10:35 – 11:00 Coffee-Break

11:00 – 12:40 Parallel Sessions / Mini-Symposia

[S09 – Challenges in Autonomous Learning](#)

Auditorium S1

Organizer: Roseli A. F. Romero

Speakers: Paulo Martins Engel, Luiz Chaimowiz, Sílvia Botelho, Caurin, G. A. P., Anna Helena Reali Costa, Roseli A. F. Romero

[S10 – Astrodynamics – Part I](#)

Auditorium FM

Organizers: Othon Cabo Winter, Antonio F.B.A.Prado

Speakers: Anderson O. Ribeiro, Valerio Carruba Décio C. Mourão, D. Foryta,

[S11 – Dynamics Suspensions Part I - Coagulation and Trapping](#)

Auditorium RH

Organizers: Rafael Dias Viela, Michael Wikinson, Jean-Regis Angilella

Speakers: Ian J. Ford, Jean-Régis Angilella, Rafael D. Vilela,

[S12 – Nonlinear Vibrations Elastic Structures](#)

Auditorium SC

Organizers: Marcio José Horta Dantas, José Manoel Balthazar, Paulo Batista Gonçalves

Speakers: Márcio José Horta Dantas, Heitor Miranda Bottura, Luciano Barbanti, Damasceno, André Fenili

12:40 – 2:30 PM – Lunch

Afternoon

2:30 PM – 4:05 PM Plenary Sessions

Auditorium FM

Chair: Hamilton Varela

2:30 PM – 3:05 PM [P 22: Hans Ingo Weber](#)

Nonlinear Dynamics and Multibodies Rotating in Space.

3:05 PM – 3:35 PM [P 23: Ricardo Egydio](#)

Dynamical Transport Barriers.

3:35 PM – 4:05 PM [P 24: Katharina Krischer](#)

Globally coupled oscillators: An experimental approach towards an associative memory device.

4:05 PM – 4:25 PM Coffee Break

4:25 PM – 5:25 PM Parallel Sessions / Contributive Talks

4:25 PM – 5:25 PM [C 09 Control](#)

Chair: Luiz Felipe R. Turci

Auditorium: FM

Benjamin Toledo – “Optimal Control in Noisy Chaotic Systems”.

Viviana Csota – “Stabilizing equilibrium by linear feedback for controlling chaos in Chen system”.

Antonio Endler – “The controlling role of envelope mismatches in intense inhomogeneous charged beams”.

Wolfgang Hanke – “Control of the Belousov-Zhabotinsky reaction by small external forces, especially gravity”.

4:25 PM – 5:25 PM [C 10 Celestial Mechanics](#)

Chair: Vivian M. Gomes

Auditorium: RH

Ashok Mittal – “Intriguing structures in iterative maps motivated by N-body problem”.

Maria Espindola – “Direct Hamiltonization - The Generalization of the Alternative Hamiltonization”.

Sergio Joras – “Homoclinic Chaos in Axisymmetric Bianchi-IX cosmological models with an ‘ad hoc’ quantum potential”.

4:25 PM – 5:25 PM [C 11 Self-organization and Collective Phenomena](#)

Chair: Juan Valdivia

Auditorium: SC

Juan Valdivia – “Chaos and criticality in city traffic under resonant conditions”.

Victor Munoz – “Description of realistic wealth distributions by kinetic trading models”.

Priscila Favero – “The role of dipole surface at CdS nanoparticle self organization”.

Rosse Quiroz – “Phase transition liquid-gas simulation in a bi-dimensional net”.

4:25 PM – 5:25 PM [C 12 Fluid Dynamics and Turbulence](#)

Chair: Abraham Chian

Auditorium S1

Rodrigo Miranda – “Amplitude-phase synchronization in intermittent turbulence and spatiotemporal chaos”.

Abraham Chian – “Edge of chaos in the GOY shell model of fully-developed turbulence”.

Giseli Lima – “Two upwinding schemes for nonlinear problems in fluid dynamics”.

Breno Silva – “Turbulence and Cascades on Geodynamo”.

5:25 PM – 6:30 PM Plenary Sessions

Auditorium FM

Chair: Mario Cosenza

5:30 PM – 6:00 PM [P 25: Celia Anteneodo](#)

Lyapunov exponents of many particle systems.

6:00 PM – 6:30 PM [P 26: Paulo R. de Souza Mendes](#)

A Novel Approach For Modeling the Thixotropic Elastoviscoplastic.

6:30 PM – 20:30 PM **Poster Session (PT_1)**

Chair: Rodolfo Maduro Almeida
Atrium

Thursday – July, 29th

Morning

8:30 – 10:35 **Plenary Session**

Auditorium FM

Chair: Edson Denis Leonel

8:30 – 9:05 [P 27: Jürgen Kurths](#) Dynamical System and Complex Networks: Are such Theories Useful for Neuroscience and Geoscience.

9:05 – 9:35 [P 28: Murilo Baptista](#) Communication in complex networks.

9:35 – 10:05 [P 29: Philip Morrison](#) Chaos in Nontwist Hamiltonian Systems.

10:05 – 10:35 [P 30: Peter McClintock](#) Wave Turbulence in Superfluid ^4He : Energy Cascades, Rogue Waves & Kinetic Phenomena in the Laboratory.

10:35 – 11:00 **Coffee-Break**

11:00 – 12:40 **Parallel Sessions / Mini-Symposia**

[S13 – Communication with Chaos Part I](#)
Auditorium S1

Organizers : Marcio Eisencraft
Speakers: Murilo da Silva Baptista, Renato D. Fanganiello, Luiz Bernardo, Diogo C. Soriano,

[S14 – Astrodynamics – Part II](#)

Auditorium FM
Organizers: Othon Cabo Winter, Antonio F.B.A. Prado
Speakers: Rodney S. Gomes, Tadashi Yokoyama, Silvia M. Giuliatti Winter, Hugo Folonier

[S15 – Dynamics Suspensions Part II - Turbulence](#)

Auditorium RH
Organizers: Rafael Dias Viela, Michael Wikinson, Jean-Regis Angilella
Speakers: Alain Pumir, M. Wilkinson, B. Mehlig,

[S16 – Nonlinear Analysis Simulation Space Physics](#)

Auditorium SC
Organizers: R. R. Rosa, J.D. Simões da Silva
Speakers: Abraham C.-L. Chian, E. Luiz Rempel, M. P. M. A. Baroni, R. R. Rosa
12:40 – 2:30 PM – Lunch

Afternoon

2:30 PM – 4:05 PM **Plenary Sessions**

Auditorium FM
Chair: Ricardo Luiz Viana

2:30 PM – 3:05 PM [P 31: Luca Moriconi](#)
Turbulent Boundary Layer Fluctuations and Horseshoe Vortices.

3:05 PM – 3:35 PM [P 32: Imre M. Jánosi](#)
Chaotic advection of passive tracers in the atmosphere: laboratory models and numerical tests with reanalysis wind fields.

3:35 PM – 4:05 PM [P 33: Cristina Masoller](#)
Quantifying complexity via information theory measures.

4:05 PM – 4:25 PM **Coffee Break**

4:25 PM – 5:25 PM **Parallel Sessions / Contributive Talks**

4:25 PM – 5:25 PM [C 13 Control in Complex Systems](#)

Chair: Marcio Dantas
Auditorium: FM
André Steklain – “Stability of a Restricted Three-Body Problem with the Spherical Plummer Potential”.
Daniel Cajueiro – “Controlling self-organized criticality in complex networks”.
Marcio Dantas – “Stabilization due to Singular Perturbations in a Wind Model”.
Adriano Batista – “Squeezing of thermal noise in a parametrically-driven Duffing oscillator”.

4:25 PM – 5:25 PM [C 14 Communication with chaos and Coding](#)

Chair: Marcio Eisencraft
Auditorium: SC
Leonardo B. Torres – “Digital Modulation using High Period Unstable Periodic Orbits”.
Diogo Soriano – “Blind extraction and separation of chaotic sources - results and perspectives”.
David Citrin – “Multiplexed Chaos-Based Communications with Semiconductor Lasers”.
Daniel Chaves – “Properties of a Arithmetic Code for Geodesic Flows”.

4:25 PM – 5:25 PM [C 15 Dynamics of Granular Materials](#)

Chair: Adriana Tufaile

Auditorium: S1

Claudio Falcón – “Subharmonic wave transition in a quasi-one-dimensional noise fluidized shallow granular bed”.

Laurent Ponson – “Soliton and disorder: wave propagation in elastic spin chains”.

Jose Munoz – “Minkowski Spheropolyhedra for the simulation of Granular Materials”.

Orazio Descalzi – “Partial annihilation of counter-propagating pulses”.

4:25 PM – 5:25 PM [C 16 Plasma and Turbulence](#)

Chair: Ricardo Luiz Viana

Auditorium RH

Erico Rempel – “Lagrangian Coherent Structures in a Nonlinear MHD Dynamo”.
Luca Moriconi – “Time Dependent Shocks and Forcing Effects in the Velocity Probability Distribution Functions of Burgers Turbulence”.

Cayo Francisco – “Dynamics of the Brazil-Malvinas Confluence”.

Carlos Breviglieri – “Spatial High Order Numerical Solution for Fluid Dynamics Applications”.

5:25 PM – 6:30 PM **Plenary Sessions**

Auditorium FM
Chair: Roland Korbele

5:30 PM – 6:00 PM [P 34: Marcus A. M. de Aquiar](#)
A Neutral Theory of Speciation and Diversity.

6:00 PM – 6:30 PM [P 35: Marcel Clerc](#)
Liquid–solid-like transition in quasi-one-dimensional driven.

6:30 PM – 20:30 PM **Poster Session (PT_2)**
Chair: Luiz Felipe Ramos Turci

Atrium

Friday – July, 30th

Morning

8:30 – 10:35 **Plenary Sessions**

Auditorium FM

Chair: Elbert E. N. Macau

8:30 – 9:05 [P 36: Ying-Cheng Lai](#)
Relativistic quantum scars..

9:05 – 9:35 [P 37: Ruedi Stoop](#)
Shrimps and their relation to perception.

9:35 – 10:35 **Poster Session (PT_3)**

Chair: Vivian Gomes

Atrium

10:35 – 11:00 **Coffee-Break**

11:00 – 12:40 **Parallel Sessions / Mini-Symposia**

[S17 – Communication with Chaos Part II](#)

Auditorium S1

Organizer: Marcio Eisencraft

Speakers: José M. V. Grzybowski, Antonio Marcos Batista, Fábio Siqueira Netto, Leonardo Antônio Borges Tôres

[S18 – Astrodynamics – Part III](#)

Auditorium FM

Organizers: Othon Cabo Winter, Antonio F.B.A.Prado,

Speakers: J.I.B. Camargo, Mauro F. Baião, Rodolpho Vilhena de Moraes, Ana Paula Marins Chiaradia

[S19 – Turbulence in Fluids and Plasma](#)

Auditorium RH

Organizers: Ricardo Luiz Viana

Speakers: I. L. Caldas, S. R. Lopes, R. L. Viana

[S20 – Zero Average Dynamics - ZAD](#)

Auditorium SC

Organizers: Gerard Plivar, Fabiola Angulo, Gustavo Adolfo Osorio

Speakers: Juan G. Muñoz, Simeón Casanova, John A. Taborda, Andrés F. Amador, Daniel A. Burbano

12:40 – 2:30 PM – Lunch

Afternoon

2:30 PM – 3:05 PM **Plenary Sessions**

Auditorium FM

Chair: Antonio F. Bertachini de Almeida Prado

2:30 PM – 3:05 PM [P 38: Marcelo Barreiro Parrilo](#)

Climate predictability over South America.

3:05 – 4:05 **Parallel Sessions / Mini-Symposia**

[S21 – Astrodynamics – Part IV](#)

Auditorium FM

3:05 PM – 4:05 PM **Parallel Sessions / Contributive Talks**

3:05 PM – 4:05 PM [C 17 Chaotic Dynamics](#)

Chair: Rene Medrano

Auditorium: SC

Ued Maluf – “Chaos and complexity: a non-ordinary route - II”.

Rene Medrano-T. – “Periodic windows distribution: A quantitative description in the two-parameter space”.

Elinei Santos – “The chaotic Dynamics of Watt regulator generated frommap and differential equations”.

Pablo Muñoz – “Chaotic saddles in a numerical model of Pierce diode”.

Hiroyuki Yoshida – “Chaotic Dynamics in Mathematical Economics: A Duopoly Model”.

3:05 PM – 4:05 PM [C 18 Dynamics of Byosistems and Health Applications](#)

Chair: Moacir F. de Godoy

Auditorium: RH

Jean-Marc Schwartz – “Generic dynamic modeling of metabolic systems”.

Daniel Schultz – “Deciding fate in adverse times: sporulation and competence in Bacillus subtilis”.

Maurizio De Pittà – “Propagation of calcium pulses in astrocyte networks by nonlinear gap junctions”.

David Scheneider – “A Minimalist Model Of Calcium-Voltage Coupling In GnRH Cells.”.

Alexander Loskutov – “May suppression of the spatio-temporal chaos in cardiac tissue be a method for controlling the fibrillation phenomenon?”.

4:40 – 11:00 **Coffee-Break**

5:00 PM **Closing Section**