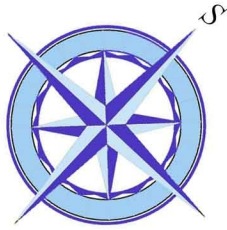


# Centro de Física y Matemática de América del Sur CEFIMAS



## RUMBOS DE LA FÍSICA TEÓRICA IV

## TRENDS IN THEORETICAL PHYSICS IV

Buenos Aires, April 30 – May 5

### PROGRAM

| Time  | Monday              | Tuesday             | Wednesday           | Thursday            | Friday              | Saturday    |
|-------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------|
| 09.30 | A. Gaumé            | A. Gaumé            | A. Gaumé            | Berkovits           | Berkovits           |             |
| 10.30 | <i>coffee break</i> | <i>coffee break</i> | <i>coffee break</i> | <i>coffee break</i> | <i>coffee break</i> |             |
| 11.00 | Alfaro              | Sassot              | Sciutto             | Kozameh             | Sorella             | Zaldarriaga |
| 12.00 | Julia               | Julia               | Delgado             | Carena              | Carena              | Closing     |
| 13.00 | Lunch               | Lunch               | Lunch               | Lunch               | Lunch               |             |
| 15.00 | Grojean             | Grojean             | Russo               | Baulieu             | Asorey              |             |
| 16.00 | Aragão              | Gamboa              | Pérez               | Zaldarriaga         | Zaldarriaga         |             |
| 17.00 | <i>coffee</i>       | <i>coffee</i>       | <i>coffee</i>       | <i>coffee break</i> | <i>coffee break</i> |             |
| 17.15 |                     |                     |                     | Randall             | Randall             |             |
|       |                     |                     |                     |                     |                     |             |

### Lecturers

**Jorge Alfaro**, PUC, Chile

*Quantum Gravity and Maximum Attainable Velocities in the Standard Model*

**Luis Alvarez Gaumé**, CERN, Switzerland

*Critical Phenomena in Gravity and Gauge Theories*

**Carlos Aragão de Carvalho**, UFRJ, Brazil

*To be announced*

**Manuel Asorey**, U. de Zaragoza, Spain

*Edge Renormalization: Relevance in the margin*

**Laurent Baulieu**, U. de Paris 6, France

*Shadows, twisted variables and renormalization of supersymmetric theories*

**Nathan Berkovits**, IFT, Brazil

*Applications of the Pure Spinor Formalism for the Superstring*

**Marcela Carena**, Fermilab, USA

*To be announced*

**Antonio Delgado**, CERN, Switzerland

*Revisiting gauge mediation*

**Jorge Gamboa**, USACH, Chile

*Lorentz invariance violation in particle physics and cosmology*

**Christophe Grojean**, CERN, Switzerland

*Beyond the Higgs: New Approaches to Electroweak Symmetry Breaking*

**Bernard Julia**, ENS, France

*1-The power of dualities*

*2 From gravitational self-duality to duality with dark energy*

**Carlos Kozameh**, U. de Córdoba, Argentina

*Light propagation on quantum curved spacetime and back reaction effects*

**Alejandro Pérez**, U. Aix-Marseille, France

*Introduction to loop quantum gravity*

**Lisa Randall**, Harvard U., USA

*To be announced*

**Jorge Russo**, U. de Barcelona, Spain

*Non-renormalization theorems in type II string theory and maximal supergravity*

**Rodolfo Sassot**, UBA, Argentina

*Hadronization within perturbative QCD*

**Sergio Sciutto**, UNLP, Argentina

*Hadronic interactions and air shower development*

**Silvio Sorella**, UERJ, Brazil

*Understanding gluon confinement*

**Matías Zaldarriaga**, Harvard U., USA

*Cosmology present status and future prospects*

**Public Conference**  
***Otros Universos dentro y fuera del nuestro***  
**Prof. Matías Zaldarriaga**

*Friday, May 4, at 7.00 pm*

*This will be a Conference on Physics/Cosmology addressed to a general public, including high school students.*

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