

SPAIN TEAM

Instituto de Fisica d'Altes Energies (IFAE), Barcelona

Extended Teams:

Instituto de Fisica Teorica (IFT), Madrid

Universidad Autonoma de Madrid (UAM), Madrid

Scientist-in charge: **M. Quiros**

September 19, 2008

IFAE team, Barcelona

- ▶ **Staff:** Mariano Quirós (Scientist-in-charge), Toni Grifols, Eduard Masso, Alex Pomarol
- ▶ **Ramon y Cajal:** Joaquim Matias
- ▶ **Postdocs:** Thomas Konstandin, Alessio Provenza, Andrea Wulzer
- ▶ **Students:** Germano Nardini, Javier Serra, Joan Antoni Cabrer, David Diego, Pere Masjuan, Javier Redondo, Gabriel Zsembinski, Javier Virto

IFT/UAM extended team, Madrid

- ▶ **Staff:** Jesus Moreno, Alberto Casas, Jose Ramon Espinosa, Belen Gavela, Juan Garcia-Bellido, Carlos Muñoz
- ▶ **Postdocs:** Roberto Ruiz de Austri, David Cerdeño, Carla Biggio, Thomas Hambye, Osamu Seto, Gianmassimo Tasinato, Jean-Francois Dufaux, Nicolas Garron
- ▶ **Students:** Guillermo Ballesteros, M. Eugenia Cabrera, D. Garcia Figueroa, Adolfo Guarino, Jose Miguel No, Javier Rubio

IFAE team, Barcelona

- ▶ Celebrating the 60th Birthday of MQ, Barcelona, 25 May 2007
- ▶ Planck 2008, *From the Planck scale to the Electroweak scale*, held at Science Museum, CosmoCaixa, Barcelona 19-23 May 2008
- ▶ Master in Physics: Standard Model and Beyond the Standard Model in Particle Physics, IFAE, November 2007-June 2008

IFT/UAM extended team, Madrid

- ▶ Getting ready for the LHC, Madrid, 23-27 October 2006
- ▶ Modern Cosmology, Benasque, 2008 July 27 – August 14
- ▶ Workshop on High Energy Physics, 1 September-12 September 2008
- ▶ International School on Astroparticle Physics, 21 June-1 July 2008
- ▶ Windows on Quantum Gravity, 18-19 June 2008
- ▶ Master in Theoretical Physics, October 2007-June 2008

Young researcher & activities

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Who we are

Training activities

**Young researchers
& activities**

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IFAE team, Barcelona

- ▶ ESR: Nikolaos Brouzakis, from September 20, 2008
- ▶ ER: Thomas Konstandin, from November 1, 2007

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Who we are

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- ▶ Subjects of interest for Nikolaos Brouzakis: **cosmology, Dark Matter, Dark Energy**
- ▶ Subjects of interest for Thomas Konstandin: **electroweak baryogenesis, leptogenesis and gravitational wave production by cosmological phase transition**

Young researcher & activities

Some recent publications of **Thomas Konstandin**:

- ▶ S. J. Huber and T. Konstandin, "Gravitational Wave Production by Collisions: More Bubbles," arXiv:0806.1828 [hep-ph], Accepted by JCAP.
- ▶ T. Hallgren, T. Konstandin and T. Ohlsson, "Triplet Leptogenesis in Left-Right Symmetric Seesaw Models," JCAP 0801 (2008) 014
- ▶ S. J. Huber and T. Konstandin, "Production of Gravitational Waves in the nMSSM," JCAP 0805 (2008) 017
- ▶ E. K. Akhmedov, M. Blennow, T. Hallgren, T. Konstandin and T. Ohlsson, "Stability and leptogenesis in the left-right symmetric seesaw mechanism," JHEP 0704 (2007) 022
- ▶ S. J. Huber, T. Konstandin, T. Prokopec and M. G. Schmidt, "Electroweak phase transition and baryogenesis in the nMSSM," Nucl. Phys. B 757 (2006) 172

Young researcher & activities

Some recent publications of **Nikolaos Brouzakis**:

- ▶ N. Brouzakis, N. Tetradis and C. Wetterich, “Neutrino Lumps in Quintessence Cosmology,” Phys. Lett. B **665** (2008) 131 [arXiv:0711.2226 [astro-ph]].
- ▶ N. Brouzakis, N. Tetradis and E. Tzavara, “Light Propagation and Large-Scale Inhomogeneities,” JCAP **0804** (2008) 008 [arXiv:astro-ph/0703586].
- ▶ N. Brouzakis, N. Tetradis and E. Tzavara, “The Effect of Large-Scale Inhomogeneities on the Luminosity Distance,” JCAP **0702** (2007) 013 [arXiv:astro-ph/0612179].
- ▶ P. S. Apostolopoulos, N. Brouzakis, N. Tetradis and E. Tzavara, “Cosmological acceleration and gravitational collapse,” JCAP **0606** (2006) 009 [arXiv:astro-ph/0603234].
- ▶ N. Brouzakis and N. Tetradis, “Static Configurations of Dark Energy and Dark Matter,” JCAP **0601** (2006) 004 [arXiv:astro-ph/0509755].