



CONSEJO SUPERIOR
DE INVESTIGACIONES
CIENTÍFICAS

INSTITUTO DE ESTRUCTURA
DE LA MATERIA

Workshop on quantum phase transitions and dynamics in two-level systems

Madrid, June 27-28, 2012

Place: Conference room of the CFMAC, Serrano 121.

Lecturers and talks:

- ◆ **Jorge Hirsch.** Instituto de Ciencias Nucleares. UNAM.
Dicke Model: coherent states and symmetries.
- ◆ **Armando Relaño.** Universidad Complutense de Madrid.
Generalized microcanonical ensemble for quantum systems with degenerated spectrum.
- ◆ **Manuel Calixto.** Universidad de Granada.
Entanglement, delocalization and uncertainty in QPT's of Dicke and vibron models.
- ◆ **Juan José García-Ripoll.** Instituto de Física Fundamental. CSIC.
Ultrastrong coupling: the Dicke model in circuits.
- ◆ **Bruno Juliá-Díaz.** Institut de Ciències Fotòniques. Barcelona.
Dynamic generation of spin-squeezed states in bosonic Josephson junctions.
- ◆ **Francisco Pérez-Bernal.** Universidad de Huelva.
Modelling coupled molecular benders as a two-fluid bosonic system within the 2D limit of the Vibron Model.
- ◆ **Salvador Miret-Artes.** Instituto de Física Fundamental. CSIC.
Stochastic dynamics of two-level systems: a Langevin canonical approach.

Organizers: J. Dukelsky (IEM. CSIC), J. M. Arias (DFAMN, Sevilla), and F. Pérez-Bernal (DFA, Huelva).

Activity: This workshop is organized by the associated units between the Instituto de Estructura de la Materia and the Universities of Sevilla and Huelva.



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PROGRAM

<i>Time</i>	<i>Wednesday 27</i>	<i>Thursday 28</i>
9:30-10:00		Relaño
10:15-10:45		Calixto
11:00-11:30		Coffee break
11:30-12:00		Pérez-Bernal
12:15-13:00		Miret-Artés
13:30-15:30	Lunch	Lunch
15:30-16:00	Juliá-Díaz	Discussion
16:15-16:45	García-Ripoll	Concluding remarks
17:00-17:30	Coffee break	
17:30-18:00	Hirsch	
18:00-18:30	Discussion	