

1st NanoSpain Workshop

March 10-12, 2004

San Sebastian (Spain)



Phantoms
Foundation

eman ta zabal zazu



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del pais vasco



DONOSTIA INTERNATIONAL
PHYSICS CENTER



During the last two decades, a revolutionary scientific new age, based on the capacity to observe, characterize, manipulate and organize matter in the nanometric scale, is appearing. In this scale, physics, chemistry, materials science, computational theory, and engineering converge towards the same theoretical principles and experimental findings that are basically governed by the laws of Quantum Mechanics. Nanotechnology involves these interdisciplinary knowledge areas and methodologies in order to study, manufacture and characterize functional structures with dimensions of tens of nanometers.

The three year-old NanoSpain network aims to agglutinate and coordinate the efforts made in the field of Nanotechnology by Spanish groups from universities, research institutes and companies. Moreover, this network has tried to help the government institutions in defining potential actions and plans referring to this area. Currently, the NanoSpain network comprising 111 Spanish groups with near 400 researchers in total is one of the widest Spanish scientific networks.

As a direct and most effective way to enhance the interaction between network members, the first meeting of NanoSpain is being organised. Its objective is to facilitate the dissemination of knowledge and promote interdisciplinary discussions among the different NanoSpain groups. In order to organise the various sessions and to select contributions, the meeting has been structured in the following thematic lines, but interactions among them will be promoted:

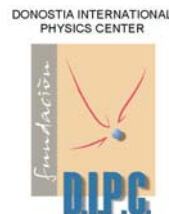
- MEMS/NEMS
- Nanobiology
- Nanomaterials
- Nanochemistry
- Nanoelectronics
- Scanning Probe Microscopies (SPM)
- Scientific Policy and Infrastructure
- Simulation at the nanoscale

Another objective of this meeting will be to permit considering the situation of Nanotechnology in Spain, as well as in reaching conclusions concerning the future of the NanoSpain network, in order to guarantee its continuity by means of concrete proposals and a renovation of its structures.

This event receives funding from the "Donostia International Physics Center" (DIPC) and the Spanish Ministry of Science through the following two networks:

- "Red Española de Nanotecnología (NANOSPAIN)". Funding Agency: Ministerio de Ciencia y Tecnología - Acción Especial (MAT2001-5411-E)
- "Red Nacional de Investigadores en Nanociencias: Metodologías Experimentales y Teóricas (NANOCIENCIA)". Funding Agency: Ministerio de Ciencia y Tecnología - Acción Especial PGC2000-2586-E

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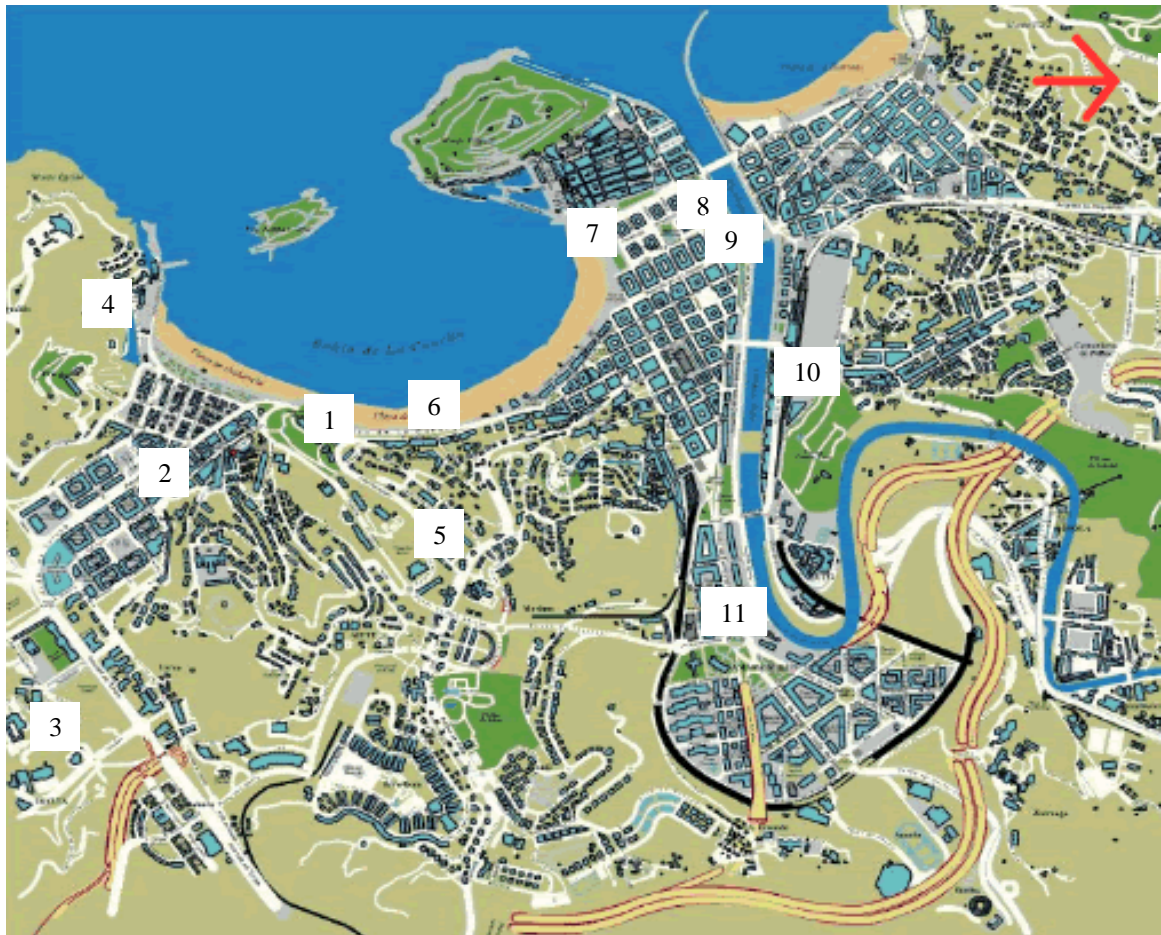
Committees

Organising Committee	
Fernando Briones	CNM-CSIC
Antonio Correia	Fundación PHANTOMS / CMP Científica S.L.
Pedro Echenique	Donostia International Physics Center (DIPC)
Pedro Serena	ICMM-CSIC

Technical Organisation Committee	
Fernando Hernández	Fundación PHANTOMS
Jose Luis Roldán	Fundación PHANTOMS
Cristina Roldán	CMP Científica S.L.
Angel Rubio	Universidad del País Vasco
Daniel Sánchez Portal	Centro Mixto CSIC-UPV/EHU "Unidad de Física de Materiales"

Advisory Board	
Sabino Azcarate	Tekniker
Jaime Colchero	Universidad de Murcia
Pedro Echenique	Donostia International Physics Center (DIPC)
Rodolfo Miranda	Universidad Autónoma de Madrid
Pablo Ordejón	ICMAB-CSIC
Fernando Palacio	Universidad de Zaragoza
Emilio Prieto	Centro Español de Metrología
José Rivas	Universidad de Santiago de Compostela
Conchita Solans	Instituto de Investigaciones Químicas y Ambientales de Barcelona
Jaume Veciana	Instituto de Ciencia de Materiales de Barcelona (CSIC)


Invited Speakers				
Last Name	Name	Organisation	Country	Topic
Baptist	Robert	DRFMC (CEA)	France	Infrastructure
Barth	Johannes	Institut de Physique des Nanostructures (EPFL)	Switzerland	Nanochemistry
Brugger	Juergen	EPFL	Switzerland	NEMS/MEMS
Cingolani	Roberto	Lecce University	Italy	Nanomaterials
Myles	Mervin	Bristol University	UK	SPM
Onoa	Bibiana	Dupont	USA	Nanobiology
Yaliraki	Sophia	Imperial College	UK	Simulation at the Nanoscale
Horikoshi	Yoshiji	Semiconductor Electronics Dept., Waseda University, Tokyo	Japan	Nanoelectronics
European Commission Speakers				
Last Name	Name	Organisation	Country	Topic
Van-Hove	Patrick	European Commission (IST/FET)	Belgium	Research Policy
Viviente	Jose Luis	European Commission (NMP)	Belgium	Research Policy



AIRPORT

1. Miramar Palace (Conference location)
2. Hotel NH Aranzazu (Conference dinner location)
3. Donostia International Physics Center (DIPC)
4. Funicular Station
5. Hotel Costa Vasca
6. Beach “La Concha”
7. Town Hall (Welcome reception)
8. Tourism Office
9. Hotel Maria Cristina
10. Northern Railway Station
11. Bus Station

1st NANOSPAIN WORKSHOP: PROGRAMME

Tuesday 09th		
17h00- 19h00	Registration	
20h00	Welcome reception at San Sebastian Town Hall	 <p>Donostiako Udala Ayuntamiento de San Sebastián</p>

SCIENTIFIC PROGRAMME	
Wednesday 10th	
08h30- 09h00	Registration
09h00- 09h15	Opening
NEMS/MEMS (Chairman: Emilio Prieto)	
09h15- 10h00	Juergen Brugger (EPFL, Switzerland): MEMS-BASED NANOPATTERNING AND NEMS
10h00 - 10h15	J. Bausells (Centro Nacional de Microelectrónica (IMB-CSIC), Spain): FABRICATION OF MICRO/NANO ELECTROMECHANICAL DEVICES IN SILICON
10h15 - 10h30	Jesus Gonzalez (Instituto de Magnetismo Aplicado, Spain): SmCo HARD MAGNETIC FILMS FOR MEMS DEVICES
10h30 - 10h45	C. A. Mills (Nanobioengineering Laboratory (CREBEC), Spain): NANOPATTERNING OF POLYMER SURFACES FOR BIOMEDICAL APPLICATIONS
10h45 - 11h00	M. Aguirregabiria (Ikerlan S. Coop. MEMS/MST Department, Spain): NOVEL 3D EMBEDDED MICROFLUIDIC CHANNELS FOR BIOMEMS APPLICATIONS
11h00 - 11h30	COFFEE BREAK / POSTERS
Simulation at the nanoscale (Chairman: Pablo Ordejon)	
11h30 - 12h15	Sophia Yaliraki (Imperial College, UK): CONTROLLING SELF-ASSEMBLED ARCHITECTURES FOR OPTIMAL MOLECULAR ELECTRONIC DEVICES
12h15 - 12h30	M.J. Caturla (Universidad de Alicante, Spain): MODELING MATERIAL BEHAVIOR AT THE NANOSCALE USING MOLECULAR DYNAMICS: NANOCRYSTALS AND NANOCONTACTS
12h30 - 12h45	J.I. Cerdá (Instituto de Ciencia de Materiales de Madrid, ICMM-CSIC, Spain): AN STM STUDY OF WATER ON Pd(111):EXPERIMENT AND THEORY
12h45 - 13h00	M. Machado (CEMES-CNRS, Spain): DISTANCE DEPENDENT STANDING WAVE PATTERN INDUCED BY A BENZENE MOLECULE ADSORBED ON A CU(111) SURFACE
13h00 - 13h15	Juan José Sáenz (Universidad Autónoma de Madrid, Spain): ELECTROSTATIC FORCES IN SCANNING PROBE MICROSCOPY: QUANTITATIVE ANALYSIS OF THE ELECTROSTATIC SIGNAL IN NANOWIRES
13h15 - 15h00	LUNCH* (not included)
Nanochemistry (Chairman: Conchita Solans)	
15h00 - 15h45	Johannes Barth (Institut de Physique des Nanostructures (EPFL), Switzerland): ENGINEERING SUPRAMOLECULAR NANOSYSTEMS AT SURFACES
15h45 - 16h00	J.A Alonso (Universidad de Valladolid, Spain): INTERACTION OF HYDROGEN WITH CARBON NANOTUBES
16h00 - 16h15	David B. Amabilino (ICMAB (CSIC), Spain): SELF-ASSEMBLY OF COMPONENTS FOR NANOMETER-SCALE MOLECULAR ELECTRONICS –TETRATHIAFULVALENE MONOLAYERS STUDIED BY STM
16h15 - 16h30	M. Clemente-León (Instituto de Ciencia Molecular, Universidad de Valencia, Spain): NANOSTRUCTURED HYBRID MOLECULAR MATERIALS
16h30 - 16h45	J.V. García-Ramos (Instituto de Estructura de la Materia, CSIC, Spain): RAMAN AND INFRARED SPECTROSCOPY ON NANOSTRUCTURED METAL SURFACES (SERS AND SEIR) OF EXTREMELY DISPERSED OR ISOLATED MOLECULAR SYSTEMS
16h45 - 17h00	M. Victoria Martínez Díaz (Departamento de Química Orgánica, UAM, Spain): TOWARDS METALLOPHTHALOCYANINE-BASED MOLECULAR MATERIALS WITH ELECTRONIC AND OPTO-ELECTRONIC PROPERTIES
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18h00 - 18h45	Bibiana Onoa (Dupont, USA): NUCLEIC ACIDS: TOOLS AND TARGETS IN NANOTECHNOLOGY
18h45 - 19h00	Ramon Eritja (Instituto de Biología Molecular de Barcelona (IBMB), CSIC, Spain): ASSEMBLY OF NANOMATERIALS DIRECTED BY OLIGONUCLEOTIDE DERIVATIVES
19h00 - 19h15	I. Katakis (Bioengineering & Bioelectrochemistry Group, Universitat Rovira i Virgili, Spain): SITE DIRECTED IMMOBILISATION OF BIORECOGNITION NANOMODULES FOR BIOCHIPS
19h15 - 19h30	Ignacio Casuso (Universitat de Barcelona, Spain): ADVANCES TOWARDS THE DEVELOPMENT OF SCANNING PROBE MICROSCOPY FOR THE ELECTRICAL CHARACTERISATION OF BIOLOGICAL SAMPLES
Scientific Policy & Infrastructure (Chairman: Pedro A. Serena)	
19h30 - 20h00	Manuel Vazquez (ICMM-CSIC / Coordinador Acción Estratégica, Spain): NATIONAL STRATEGIC ACTION PLAN OF NANOTECHNOLOGY

SCIENTIFIC PROGRAMME	
Thursday 11th	
SPM (Chairman: Angel Rubio)	
09h00- 09h45	Mervyn Miles (University of Bristol, UK):DEVELOPMENTS IN SPM FOR NANOTECHNOLOGY
09h45 - 10h00	A.M. Baró (Instituto de Carboquímica, Spain): CHARACTERIZATION BY ATOMIC FORCE MICROSCOPY OF BIOLOGICAL MATERIAL UNDER PHYSIOLOGICAL CONDITIONS
10h00 - 10h15	Ricardo García (Instituto de Microelectrónica de Madrid, CSIC, Spain): LIQUID BRIDGES, FORCE MICROSCOPY AND NANOFABRICATION
10h15 - 10h30	Francesc Pérez Murano (Centro Nacional de Microelectrónica (IMB-CSIC), Spain): MEASUREMENT OF ELECTRICAL CURRENT DURING SCANNING PROBE OXIDATION
10h30 - 10h45	H. Suderow (Dpto. de Física de la Materia Condensada CIII, UAM, Spain): ADVANCES AND FUTURE PROSPECTS OF THE USE OF SUPERCONDUCTING TIPS IN VERY LOW TEMPERATURE STM
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Nanoelectronics (Chairman: Fernando Briones)	
11h15 - 12h00	Yoshiji Horikoshi (Semiconductor Electronics Dept., Waseda University, Tokyo, Japan): MBE FOR SEMICONDUCTOR NANOSTRUCTURES
12h00 - 12h15	Blas Garrido (Departamento de Electrónica Universidad de Barcelona (UB), Spain): DEVELOPMENT OF MICROPHOTONIC DEVICES BASED ON NANOCRYSTALLINE SILICON
12h15 - 12h30	J. Fernández-Rossier (Dep. Física Aplicada, Universidad de Alicante, Spain): FERROMAGNETISM IN DILUTED MAGNETIC SEMICONDUCTOR SINGLE ELECTRON TRANSISTOR
12h30 - 12h45	Tomas Gonzalez (Dpto. Física Aplicada, Universidad de Salamanca, Spain): MONTE CARLO SIMULATION OF BALLISTIC NANODEVICES FOR THZ APPLICATIONS
12h45 - 13h00	J.L. Vicent (Departamento de Física de Materiales, Universidad Complutense, Spain): SUPERCONDUCTING REVERSIBLE NANORECTIFIER BASED ON THE RATCHET EFFECT
13h00 - 14h30	LUNCH* (not included)
Nanomaterials (Chairman: Fernando Palacio)	
14h30 - 15h15	Roberto Cingolani (Lecce University, Italy)
15h15 - 15h30	D. Mecerreyes (Centre for Electrochemical Technologies (CIDETEC), Spain): DESIGN OF NANOMATERIALS FOR ELECTROCHEMICAL APPLICATIONS
15h30 - 15h45	A. Asenjo (Instituto de Ciencia de Materiales de Madrid (CSIC), Spain): ARRAYS OF MAGNETIC NANOWIRES IN ALUMINA MEMBRANES
15h45 - 16h00	Daniel Ruiz-Molina (Institut de Ciencia de Materials de Barcelona (CSIC), Spain): MULTIPLE LENGTH SCALE PATTERNING OF SINGLE-MOLECULE MAGNETS
16h00 - 16h15	F.J. García de Abajo (Donostia International Physics Center (DIPC), Spain): EXCITACION OF SURFACE PLASMON AND CHERENKOV MODES BY FAST ELECTRONS
16h15 - 16h30	J. Esquena (Institut d'Investigacions Químiques i Ambientals de Barcelona (IIQAB), Spain): PREPARATION OF MESOPOROUS SILICA TEMPLATED IN HIGHLY CONCENTRATED EMULSIONS
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Nanomaterials (Chairman: Jose Rivas)	
17h00 - 17h15	J. Bartolomé (Instituto de Ciencia de Materiales de Aragón, CSIC-Universidad de Zaragoza, Spain): ANOMALOUS LOW-TEMPERATURE BEHAVIOR OF SWITCHING FIELDS IN Fe NANOWIRES
17h15 - 17h30	P. Gomez-Romero (Materials Science Institute of Barcelona (ICMAB, CSIC), Spain): HYBRID NANOCOMPOSITE MATERIALS FOR ENERGY STORAGE AND CONVERSION APPLICATIONS
17h30 - 17h45	R. Miranda (Departamento de Física de la Materia Condensada (UAM), Spain): MAGIC HEIGHTS IN Pb NANODOTS INDUCED BY QUANTUM SIZE EFFECTS
17h45 - 20h00	POSTER SESSION NanoSpain Advisory Board Meeting (restricted)
21h30	Conference Dinner Aranzazu NH Hotel

SCIENTIFIC PROGRAMME	
Friday 12th	
Scientific Policy & Infrastructure (Chairman: Pedro Echenique)	
10h30 - 11h00	Robert Baptist (DRFMC-CEA, France):FROM NANOSCIENCES TO NANOTECHNOLOGIES AT THE CEA-GRENOBLE RESEARCH CENTER
11h00 - 11h30	Patrick Van-Hove (European Commission, IST/FET program): ADVANCED RESEARCH IN NANOTECHNOLOGY INFORMATION DEVICES AND NANOELECTRONICS: CONTRIBUTION OF EC PROGRAMMES IN IST
11h30 - 12h00	Jose Luis Viviente (European Commission, NMP program)
12h00 - 12h20	COFFEE BREAK
12h20 - 13h00	Feedback from "Nanospain Advisory Board"
Scientific Policy & Infrastructure (Chairman: Antonio Correia)	
13h00 - 13h15	C. Domínguez (Instituto de Microelectrónica de Barcelona, Spain): FACILITIES EXPANSION FOR NANO- AND MICRO FABRICATION AT THE IMB-CNM.
13h15 - 13h30	M.R. Ibarra (Instituto de Nanociencia de Aragón, Universidad de Zaragoza, Spain): INSTITUTO UNIVERSITARIO DE INVESTIGACION EN NANOCIENCIA DE ARAGON
13h30 - 13h45	E. Prieto (Centro Español de Metrología, Spain): THE METROLOGICAL INFRASTRUCTURE AND THE "NANO" WORLD
13h45 - 14h00	J. Samitier (Parc Científic de Barcelona, Spain): NANOTECHNOLOGY PLATFORM AT BARCELONA SCIENCE PARK
14h00 - 14h10	1st Nanospain Workshop Closing Remarks

A session on Nanophotonics will be held immediately after the NanoSpain Workshop. This session will consist of two parts: (1) a few selected talks and (2) a discussion on future Spanish Nanophotonics initiatives. Everybody is welcome to participate in this session and contribute to the discussions. IMPORTANT INFORMATION: the session will take place at the Donostia International Physics Center (DIPC).

Contact details: [J. Garcia de Abajo](#) (CSIC-UPV/EHU, Spain) & [Javier Marti](#) (UPV, Spain)

NANOPHOTONICS SESSION	
Friday 12th	
15h30 - 15h55	M. A. Cazalilla: STRONGLY CORRELATED ATOMS IN TWO-DIMENSIONAL OPTICAL LATTICES
15h55 - 16h20	J. J. Sáenz: PHOTONIC LIQUIDS
16h20 - 16h45	L. A. Blanco: CONTROL OF SPONTANEOUS EMISSION BY MEANS OF NANOSTRUCTURES
16h45 - 17h10	B. Garrido: ELECTROLUMINESCENCE, OPTICAL MEMORIES, AND OPTICAL AMPLIFICATION FROM NANOSTRUCTURED GROUP IV SEMICONDUCTORS: TOWARDS INTEGRATION OF PHOTONIC DEVICES WITH SI TECHNOLOGY
17h10 - 17h40	COFFEE BREAK
17h40 - 19h00	Discussion on future Spanish Nanophotonics initiatives

MARCH 10, 2004: SCIENTIFIC PROGRAMME

SCIENTIFIC PROGRAMME	
Wednesday 10th	
08h30- 09h00	Registration
09h00- 09h15	Opening
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Scientific Policy & Infrastructure (Chairman: Pedro A. Serena)	
19h30 - 20h00	Manuel Vazquez (ICMM-CSIC / Coordinador Acción Estratégica, Spain): NATIONAL STRATEGIC ACTION PLAN OF NANOTECHNOLOGY

MARCH 11, 2004: SCIENTIFIC PROGRAMME

SCIENTIFIC PROGRAMME	
Thursday 11th	
SPM (Chairman: Angel Rubio)	
09h00- 09h45	Mervyn Miles (University of Bristol, UK): DEVELOPMENTS IN SPM FOR NANOTECHNOLOGY
09h45 - 10h00	A.M. Baró (Instituto de Carboquímica, Spain): CHARACTERIZATION BY ATOMIC FORCE MICROSCOPY OF BIOLOGICAL MATERIAL UNDER PHYSIOLOGICAL CONDITIONS
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17h45 - 20h00	POSTER SESSION NanoSpain Advisory Board Meeting (restricted)
21h30	Conference Dinner Aranzazu NH Hotel

MARCH 12, 2004: SCIENTIFIC PROGRAMME

SCIENTIFIC PROGRAMME	
Friday 12th	
Scientific Policy & Infrastructure (Chairman: Pedro Echenique)	
10h30 - 11h00	Robert Baptist (DRFMC-CEA, France):FROM NANOSCIENCES TO NANOTECHNOLOGIES AT THE CEA-GRENOBLE RESEARCH CENTER
11h00 - 11h30	Patrick Van-Hove (European Commission, IST/FET program): ADVANCED RESEARCH IN NANOTECHNOLOGY INFORMATION DEVICES AND NANOELECTRONICS: CONTRIBUTION OF EC PROGRAMMES IN IST
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12h20 - 13h00	Feedback from "Nanospain Advisory Board"
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13h30 - 13h45	E. Prieto (Centro Español de Metrología, Spain): THE METROLOGICAL INFRASTRUCTURE AND THE "NANO" WORLD
13h45 - 14h00	J. Samitier (Parc Científic de Barcelona, Spain): NANOTECHNOLOGY PLATFORM AT BARCELONA SCIENCE PARK
14h00 - 14h10	1st Nanospain Workshop Closing Remarks

A session on Nanophotonics will be held immediately after the NanoSpain Workshop. This session will consist of two parts: (1) a few selected talks and (2) a discussion on future Spanish Nanophotonics initiatives. Everybody is welcome to participate in this session and contribute to the discussions. IMPORTANT INFORMATION: the session will take place at the Donostia International Physics Center (DIPC).

Contact details: [J. Garcia de Abajo](#) (CSIC-UPV/EHU, Spain) & [Javier Marti](#) (UPV, Spain)

NANOPHOTONICS SESSION	
Friday 12th	
15h30 - 15h55	M. A. Cazalilla: STRONGLY CORRELATED ATOMS IN TWO-DIMENSIONAL OPTICAL LATTICES
15h55 - 16h20	J. J. Sáenz: PHOTONIC LIQUIDS
16h20 - 16h45	L. A. Blanco: CONTROL OF SPONTANEOUS EMISSION BY MEANS OF NANOSTRUCTURES
16h45 - 17h10	B. Garrido: ELECTROLUMINESCENCE, OPTICAL MEMORIES, AND OPTICAL AMPLIFICATION FROM NANOSTRUCTURED GROUP IV SEMICONDUCTORS: TOWARDS INTEGRATION OF PHOTONIC DEVICES WITH SI TECHNOLOGY
17h10 - 17h40	COFFEE BREAK
17h40 - 19h00	Discussion on future Spanish Nanophotonics initiatives

LIST OF PARTICIPANTS
(Last update: 26/02/2004)

Participants (204)

	Last name	Name	Country	Contribution	Topic
1	Abadal	Gabriel	Spain	Attendee	
2	Aguado	Ramón	Spain	Poster	NanoElectronics
3	Aguirregabiria	María	Spain	Oral	NEMS/MEMS
4	Aizpurua	Javier	Spain	Poster	Simulation at the NanoScale
5	Alonso	Esther	Spain	Poster	NanoMaterials
6	Alonso	Julio	Spain	Oral	NanoChemistry
7	Altube	Ainhoa	Spain	Attendee	
8	Amabilino	David B.	Spain	Oral	NanoChemistry
9	Arnaudas	Jose Ignacio	Spain	Attendee	
10	Arroyo	M ^a Teresa	Spain	Poster	NEMS/MEMS
11	Asenjo	Agustina	Spain	Oral	NanoMaterials
12	Aymerich	Xavier	Spain	Poster	NanoElectronics
13	Ayuela	Andrés	Spain	Poster	Simulation at the NanoScale
14	Azcarate	Sabino	Spain	Attendee	
15	Bañobre	Manuel	Spain	Poster	NanoMaterials
16	Baptist	Robert	France	Invited Speaker	Infrastructure
17	Barberán	Nuria	Spain	Attendee	
18	Baró	Arturo	Spain	Oral	SPM
19	Baro Marine	M ^a Dolores	Spain	Poster	NanoMaterials
20	Barranco	Jose	Spain	Attendee	
21	Barth	Johannes	Switzerland	Invited Speaker	NanoChemistry
22	Bartolome	Juan	Spain	Oral	NanoMaterials
23	Bausells	Joan	Spain	Oral	NEMS/MEMS
24	Bedoya	Natalia	Spain	Attendee	
25	Belsue	Mikel	Spain	Attendee	
26	Benito	Ana	Spain	Attendee	
27	Bilbao	Leire	Spain	Attendee	
28	Blanco	Santiago	Spain	Poster	NanoMaterials
29	Bobenstetter	Otto	Austria	Attendee	
30	Borrise	Xavier	Spain	Poster	NEMS/MEMS
31	Briones	Fernando	Spain	Organising Committee	
32	Brugger	Juergen	Switzerland	Invited Speaker	NEMS/MEMS
33	Bustero	Izaskun	Spain	Poster	NanoMaterials
34	Cabria	Iván	Spain	Attendee	

35	Calleja	Fabián	Spain	Attendee	
36	Calleja	Jose Manuel	Spain	Poster	NanoMaterials
37	Cantarero	Andrés	Spain	Poster	NanoMaterials
38	Castellarnau	Marc	Spain	Poster	NEMS/MEMS
39	Casuso	Ignacio	Spain	Oral	NanoBiology
40	Caturla	María	Spain	Oral	Simulation at the NanoScale
41	Cendoya	Ione	Spain	Poster	NanoMaterials
42	Chiussi	Stefano	Spain	Poster	NanoElectronics
43	Chubykalo	Oksana	Spain	Attendee	
44	Chulkov	Eugeni	Spain	Poster	NanoElectronics
45	Cingolani	Roberto	Italy	Invited Speaker	NanoMaterials
46	Clemente-León	Miguel	Spain	Attendee	NanoChemistry
47	Conesa	Jose Carlos	Spain	Attendee	
48	Cornet	Albert	Spain	Poster1	NanoMaterials
				Poster2	
49	Coronado	Eugenio	Spain	Oral	
50	Correia	Antonio	Spain	Organising Committee	
51	Costa Krämer	Jose Luis	Spain	Attendee	
52	de la Cruz	Rosa M ^a	Spain	Poster	NanoElectronics
53	Cuberes	Teresa	Spain	Poster	SPM
54	Cui	Hai-Ning	Portugal	Poster	NanoMaterials
55	Darder	Margarita	Spain	Poster	NanoMaterials
56	Diez	Jose Antonio	Spain	Attendee	
57	Dominguez	Carlos	Spain	Oral	Infrastructure
58	Dominguez Rodriguez	Arturo	Spain	Attendee	
59	Echenique	Pedro	Spain	Organising Committee	
60	Echevarría	Carlos	Spain	Attendee	
61	Eritja	Ramon	Spain	Oral	NanoBiology
62	Esquena	Jordi	Spain	Oral	NanoMaterials
63	Fernández Barquín	Luis	Spain	Poster	NanoMaterials
64	Fernández Gubieda	M ^a Luisa	Spain	Attendee	
65	Fernández Martinez	Iván	Spain	Attendee	
66	Fernandez Marzo	Florencio	Spain	Poster	NanoMaterials

67	Fernández Rossier	Joaquin	Spain	Oral	NanoElectronics
68	Fernandez saavedra	Rocío	Spain	Attendee	
69	Franco	Victor	Spain	Attendee	
70	Froufe	Luis	Spain	Poster	NanoElectronics
71	Fuentes	Gonzalo	Spain	Poster	NanoMaterials
72	Fuertes	Antonio	Spain	Attendee	
73	Galiana	Natalia	Spain	Attendee	
74	García	Ainhara	Spain	Attendee	
75	García	Maia	Spain	Attendee	
76	García	Ricardo	Spain	Oral	SPM
77	García Calderón	Rebeca	Spain	Attendee	
78	García de Abajo	F. Javier	Spain	Oral	NanoMaterials
79	García Mochales	Pedro	Spain	Poster	Simulation at the NanoScale
80	García Prieto	Ana	Spain	Poster	NanoMaterials
81	García Ramos	Jose Vicente	Spain	Oral	NanoChemistry Simulation at the NanoScale (1)
				Poster (1)	
82	Garrido Fernandez	Blas	Spain	Oral	NanoElectronics
83	Gil	Adriana	Spain	Attendee	
84	Goikolea Nuñez	Eider	Spain	Attendee	
85	Gómez	Julio	Spain	Poster	NanoMaterials
86	Gómez García	Diego	Spain	Poster	NanoMaterials
87	Gómez Romero	Pedro	Spain	Oral	NanoMaterials
88	González	Jesús	Spain	Oral	NEMS/MEMS
89	González	Luisa	Spain	Poster	NanoMaterials
90	González	Tomás	Spain	Oral	NanoElectronics
91	Gorría	Pedro	Spain	Attendee	
92	Gracia	Ana Isabel	Spain	Attendee	
93	Gutierrez	Alejandro	Spain	Attendee	
94	Hernandez	Eduardo	Spain	Attendee	
95	Hernandez	Fernando	Spain	Technical Organisation Committee	
96	Hernando	Antonio	Spain	Attendee	
97	Hernando	Blanca	Spain	Poster	NanoMaterials
98	Hungría	Ana Belén	Spain	Poster	NanoMaterials
99	Ibarra	Ricardo	Spain	Oral	Research Policy
100	Insausti Peña	Maite	Spain	Attendee	

101	Iribas	Jorge	Spain	Oral	Simulation at the NanoScale
102	Jimenez Quiles	Marta	Spain	Poster	NanoMaterials
103	Katakis	Ioanis	Spain	Oral	NanoBiology
104	Kohler	Heinerich	Spain	Poster	NanoElectronics
105	Kortaberria	Galder	Spain	Poster	NanoMaterials
106	Labarta	Amilcar	Spain	Poster	NanoMaterials
107	Larrañaga	Maidier	Spain	Poster	NanoMaterials
108	Lira	Monica	Spain	Poster	NanoMaterials
109	Luna	Carlos	Spain	Poster1	NanoMaterials (1) & (2)
				Poster2	
110	Machado	Eduardo	Spain	Attendee	
111	Machado	Maidier	France	Oral	Simulation at the NanoScale
112	Mallada	Reyes	Spain	Poster	NanoMaterials
113	Marquina	Clara	Spain	Attendee	
114	Martín	Jose I.	Spain	Poster1	NanoMaterials
				Poster2	
115	Martin	Daniela	Spain	Attendee	
116	Martinez	M ^a Teresa	Spain	Poster1	NanoMaterials
				Poster2	
117	Martinez Díaz	M. Victoria	Spain	Oral	NanoChemistry
118	Martinez Fraiz	Elena	Spain	Attendee	
119	Mateos	Javier	Spain	Attendee	
120	Mecerreyes	David	Spain	Oral	NanoMaterials
121	Méndez	Ana María	Spain	Poster	NanoMaterials
122	Méndez	Javier	Spain	Poster	SPM
123	Merino	Santos	Spain	Attendee	
124	Merkoci	Arben	Spain	Poster	NanoBiology
125	Merveille	Chris	Spain	Attendee	
126	Miguel	Oscar	Spain	Attendee	
127	Millán	Angel	Spain	Poster	NanoMaterials
128	Mills	Chris A.	Spain	Oral	NEMS/MEMS
129	Miranda	Rodolfo	Spain	Oral	NanoMaterials
130	Molina	Ricardo	Spain	Poster	NanoChemistry
131	Montejo	M ^a Teresa	Spain	Attendee	
132	Morante	Joan Ramon	Spain	Attendee	
133	Moreno	Arnaldo	Spain	Attendee	
134	Murillo	Nieves	Spain	Poster	NanoElectronics
135	Murua	Olatz	Spain	Poster	NanoMaterials
136	Myles	Mervin	UK	Invited Speaker	SPM

137	Negrón	Rebeca	Spain	Attendee	
138	Nogues	Josep	Spain	Attendee	
139	Obieta	Isabel	Spain	Attendee	
140	Ocal	Carmen	Spain	Attendee	SPM
141	Ochoteco	Estibaliz	Spain	Attendee	
142	Ogando	Eduardo	Spain	Poster	Simulation at the NanoScale
143	Onoa	Bibiana	USA	Invited Speaker	NanoBiology
144	Ordejón	Pablo	Spain	Attendee	
145	Ortega	Enrique	Spain	Poster	NanoMaterials
146	Pacheco	Louis	Spain	Attendee	
147	Palacio Parada	Fernando	Spain	Poster	NanoMaterials
148	Palomares	Francisco	Spain	Attendee	
149	Perez Conde	Jesús	Spain	Poster	Simulation at the NanoScale
150	Pérez Murano	Francesc	Spain	Oral	SPM
151	Pina	Elena	Spain	Attendee	
152	Pita	Marcos	Spain	Poster	NanoBiology
153	Pomposo	Jose Adolfo	Spain	Attendee	
154	Prieto	Emilio	Spain	Oral	Infrastructure
155	de la Prida	Víctor	Spain	Poster	NanoMaterials
156	Quijada	Marina	Spain	Attendee	
157	Rico	Félix	Spain	Poster	NanoBiology
158	Riikonen	Sampsa	Spain	Poster	NanoMaterials
159	Rivas	Jose	Spain	Attendee	
160	Rodriguez Prieto	Alvaro	Spain	Attendee	
161	Rodriguez	Inmaculada	Spain	Poster	NanoChemistry
162	Rodriguez Pierna	Angel	Spain	Poster	NanoMaterials
163	Roldán	Jose Luis	Spain	Technical Organisation Committee	
164	Roldán	Cristina	Spain	Technical Organisation Committee	
165	Rovira	Concepció	Spain	Poster	NanoElectronics
166	Rubio	Angel	Spain	Technical Organisation Committee	
167	Ruiz	Daniel	Spain	Oral	NanoMaterials
168	Saenz	Juan José	Spain	Oral Poster	Simulation at the NanoScale
169	Saiz Garitaonandia	Jose Javier	Spain	Poster	NanoMaterials

170	Samitier	Josep	Spain	Oral	Infrastructure
171	Sánchez Martínez	Jorge Julián	Spain	Attendee	
172	Sanchez Portal	Daniel	Spain	Technical Organisation Committee	
173	Sanchez Rojas	Jose Luis	Spain	Poster	NEMS/MEMS
174	Sarmiento	Gustavo	Spain	Poster	NanoMaterials
175	Serena	Pedro	Spain	Organising Committee	
176	Serna	Rosalía	Spain	Poster	NanoMaterials
177	Serra	Frances	Spain	Attendee	
178	Serrano	Elena	Spain	Poster	NanoMaterials
179	Serrano	Jorge	Spain	Poster	NanoMaterials
180	Silkin	Viatcheslav	Spain	Poster	NanoMaterials
181	Solans	Conxita	Spain	Attendee	
182	Soriano	Leonardo	Spain	Poster	NanoMaterials
183	Suderow	Hermann	Spain	Oral	SPM
184	Teva	Jordi	Spain	Poster	NEMS/MEMS
185	Tinoco	Ignacio	USA	Attendee	
186	Tobías	Gerard	Spain	Attendee	
187	Toca-Herrera	Jose Luis	Spain	Poster	NanoBiology
188	Torres	Francesc	Spain	Attendee	
189	Urbina	Antonio	Spain	Poster	NanoMaterials
190	Van-Hove	Patrick	Belgium	Invited Speaker	Research Policy
191	Vara	Gemma	Spain	Attendee	
192	Vazquez	Luis Fernando	Spain	Poster1	NanoMaterials (1) & (2) NanoBiology (3)
				Poster2	
				Poster3	
193	Vazquez	Manuel	Spain	Attendee	
194	Veciana	Jaume	Spain	Attendee	
195	Velasco	Victor	Spain	Poster	NanoElectronics
196	Vicent	Jose Luis	Spain	Oral	NanoElectronics
197	Victorero	Pablo	Spain	Poster	NanoElectronics
198	Vila	Anna M ^a	Spain	Poster	NEMS/MEMS
199	Vilaseca	Montserrat	Spain	Poster	NanoMaterials
200	Viviente	Jose Luis	Belgium	Invited Speaker	Research Policy
201	Yaliraki	Sophia	UK	Invited Speaker	Simulation at the Nanoscale
202	Horikoshi	Yoshiji	Japan	Invited Speaker	NanoElectronics
203	Zabala	Nerea	Spain	Attendee	
204	Zazpe	Maite	Spain	Attendee	

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