



# VII Leopoldo García-Colín Mexican Meeting on Mathematical and Experimental Physics

## Monday, 17 February 2020

### PLENARY TALKS: SYMPOSIUM ON BLACK HOLES AND GRAVITATIONAL WAVES (11:30 - 13:30)

time	[id] title	presenter
11:30	[1] CLAUS LÄMMERZAHN: Accretion disks as probes of Black Hole physics	
12:30	[2] DEIRDRE SHOEMAKER: Numerical Relativity in the Age of Gravitational Wave Observations	

### PLENARY TALKS: SYMPOSIUM ON LASER ABLATION (11:30 - 13:30)

time	[id] title	presenter
11:30	[69] EMMANUEL HARO: Nanostructured surfaces and bulk systems synthesized by laser ablation: fabrication and subsequent experiments.	
12:15	[70] AKSHANA PARAMESWARAN: Nanostructured thin films of tin sulphide for photodetector applications from pulsed laser ablated nanocolloids	
12:45	[71] TUPAK GARCÍA: Photoacoustic analysis during laser synthesis and processing of colloids	
13:15	[72] LUIS MENDOZA: Ultrafast study of cyanine IR-780: efficiency of two photon absorption by control of molecule release.	

### PLENARY TALKS: SYMPOSIUM ON SCATTERING, QUANTUM AND CLASSICAL WAVE TRANSPORT (11:30 - 13:30)

time	[id] title	presenter
11:30	[39] TSAMPIKOS KOTTOS: Time-Reversal Symmetry and its Applications: From Waveform Shaping to System Protection	
12:30	[40] EMERSON SADURNÍ: Extended quantum particles in free fall: Analytical treatment of their diffraction	

## Tuesday, 18 February 2020

### **PLENARY TALKS: SYMPOSIUM ON BLACK HOLES AND GRAVITATIONAL WAVES (11:30 - 13:30)**

time	[id] title	presenter
11:30	[6] JORGE CERVANTES-COTA: A Brief History of Gravitational Waves	
12:30	[7] OMAR LÓPEZ-CRUZ: Optical Follow-up of Gravitational Wave Sources	

### **PLENARY TALKS: SYMPOSIUM ON LASER ABLATION (11:30 - 13:30)**

time	[id] title	presenter
11:30	[81] SADASIVAN SHAJI: Pulsed laser ablation in liquid – Nanocolloids to thin films and devices.	
12:15	[82] CÉSAR GUARÍN: Disentangling the different and ultrafast relaxation processes in aromatic molecules.	
12:45	[83] SANTIAGO CAMACHO: Short and ultrashort pulsed laser processing of materials at CICESE.	

### **PLENARY TALKS: SYMPOSIUM ON SCATTERING, QUANTUM AND CLASSICAL WAVE TRANSPORT (11:30 - 13:30)**

time	[id] title	presenter
11:30	[47] RAFAEL MÉNDEZ: Artificial Mechanical Molecules	
12:30	[48] ALBERTO ROBLEDO: Localization, a nonlinear dynamical equivalent and its presence in complex systems	

## Wednesday, 19 February 2020

### **PLENARY TALKS: SYMPOSIUM ON BLACK HOLES AND GRAVITATIONAL WAVES (11:30 - 13:30)**

time	[id] title	presenter
11:30	[8] CARLOS HERDEIRO: Black holes and ultralight bosonic fields	
12:30	[9] VOLKER PERLICK: Influence of a cosmic expansion on the shadow of a black hole	

### **PLENARY TALKS: SYMPOSIUM ON LASER ABLATION (11:30 - 13:30)**

time	[id] title	presenter
11:30	[84] SVEN REICHENBERGER: Pulsed laser post-processing of colloidal metal and oxidic nanoparticles to tailor nanomaterials properties.	
12:15	[85] RAMÓN CARRILES: Nano- and micro-machining of stainless steel for superhydrophobicity.	
12:45	[86] LUIS ESCOBAR: Laser ablation of metals submerged in water as an alternative method for hydrogen production.	

### **PLENARY TALKS: SYMPOSIUM ON SCATTERING, QUANTUM AND CLASSICAL WAVE TRANSPORT (11:30 - 13:30)**

time	[id] title	presenter
11:30	[49] BARBARA DIETZ: Quantum Chaotic Scattering Experiments with Microwave Billiards, Random Matrix Theory and their Application to Nuclear Data	
12:30	[50] THOMAS GORIN: Quantum predecessors of stochastic processes with an application to the Ising spin chain	

# Thursday, 20 February 2020

## **PLENARY TALKS: SYMPOSIUM ON BLACK HOLES AND GRAVITATIONAL WAVES (11:30 - 13:30)**

time	[id] title	presenter
11:30	[15] MARIO C. DÍAZ: How heavy are stellar mass black holes?	
12:30	[16] STEFANIE KOMOSSA: The quest for supermassive black holes: singles, binaries, and mergers	

## **PLENARY TALKS: SYMPOSIUM ON LASER ABLATION (11:30 - 13:30)**

time	[id] title	presenter
11:30	[92] GERARDO CONTRERAS: Thin film and device processing at the Pulse Laser Deposition (PLD) laboratories of the Superior School of Physics and Mathematics (ESFM) – IPN and the Chemistry Faculty (FQ)-UAQ.	
12:15	[93] ENRIQUE ESPARZA: Monolayers of cholesterol deposited by Langmuir-Blodgett technique on nanostructured substrates.	
12:30	[94] ROSALBA CASTAÑEDA: Synthesis of lead free electroceramics thin films by PLD.	
13:00	[95] PAULINA SEGOVIA-OLVERA: Laser induced periodic surface structures on Bi and Ti thin films under femtosecond irradiation.	

## **PLENARY TALKS: SYMPOSIUM ON SCATTERING, QUANTUM AND CLASSICAL WAVE TRANSPORT (11:30 - 13:30)**

time	[id] title	presenter
11:30	[56] LUCA TESSIERI: Transport and localization phenomena in media with correlated disorder	
12:30	[57] CECILIA NOGUEZ: Flatland: Two-dimensional heterostructures with van der Waals interactions	

## Friday, 21 February 2020

### **PLENARY TALKS: SYMPOSIUM ON BLACK HOLES AND GRAVITATIONAL WAVES (11:30 - 13:30)**

time	[id] title	presenter
11:30	[26] PABLO LAGUNA: Space-time Curiosities: Inside the Final Black Hole and Geometrorobotics	
12:30	[27] MIGUEL ALCUBIERRE: Gravitational waves	

### **PLENARY TALKS: SYMPOSIUM ON LASER ABLATION (11:30 - 13:30)**

time	[id] title	presenter
11:30	[103] JOSÉ QUIÑONES: Control of plasma parameters for the pulsed laser deposition of alloys, compounds and composite thin films.	
12:15	[104] ANAHÍ LIMAS: Preparation of Graphite nanoparticles by laser ablation in distilled water with and without ultrasonic excitation.	
12:30	[105] LUIS FELIPE DEVIA: Ultrafast laser welding of ceramics.	
13:00	[106] RENÉ RODRÍGUEZ: Femtosecond laser fabrication of periodic nanostructures on polymeric surfaces reinforced by carbon additives.	

### **PLENARY TALKS: SYMPOSIUM ON SCATTERING, QUANTUM AND CLASSICAL WAVE TRANSPORT (11:30 - 13:30)**

time	[id] title	presenter
11:30	[35] ROBERTO QUEZADA: Dynamics of quantum states in an energy transport model	
12:30	[36] OSCAR ROSAS-ORTIZ: Supersymmetric Approach to Quantum Mechanics	