

# XII EIEC

## 12th Iberian Meeting on Computational Electromagnetics

### Schedule

Time	Tuesday, 15th May	Wednesday, 16th May	Thursday, 17th May	Friday, 18th May
8.30-10.30		Session 1A	Session 2A	Assembly
10.30-11.00		Coffee Break	Coffee Break	
11.00-12.40		Session 1B	Session 2B	Tour
12.40-14.30		Lunch	Lunch	
14.30-16.10	Arrival, check- in and registration	Session 1C	Session 2C	
16.10-16.40		Coffee Break	Coffee Break*	
16.40-18.20		Session 1D	Session 2D**	
18.20-22.00	Welcome reception	Dinner	Gala dinner	

\* Starts at 15.50

\*\*Starts at 16.20

## Wednesday morning, 16th May, **Session A**

Session	Time	No.	Title	Authors	Affiliation
	8.30-8.40	Opening Cerimony			
<b>Numerical Methods</b>	8.40-9.30	34	The Finite Element Method in Computational Electromagnetics. Modal Segmentation Techniques	Juan Zapata	Universidad Politécnica de Madrid
<b>8.30-10.30</b>	9.30-9.50	11	Recent Developments Regarding a Higher Order Finite Element Method Electromagnetic Simulator (HOFEM)	Daniel García-Doñoro, Adrian Amor-Martin, Luis E. Garcia-Castillo	Universidad Carlos III de Madrid, Xidian University
<b>Chair: Jesús Rubio</b>	9.50-10.10	8	A New Efficient ACA Convergence Criterion with Improved Accuracy	A.Heldring, J.M. Rius and E. Ubeda	Universitat Politecnica de Catalunya
	10.10-10.30	12	Non-Conformal Domain Decomposition Method Supporting hp-Discretizations	Adrian Amor-Martin, Luis E. Garcia-Castillo, Daniel García-Doñoro	Universidad Carlos III de Madrid, Xidian University
	10.30-11.00	<b>Coffee Break</b>			

## Wednesday morning, 16th May, **Session B**

Session	Time	No.	Title	Authors	Affiliation
<b>Metamaterials</b>  <b>11.00-12.50</b>  <b>Chair:</b> <b>Francisco</b> <b>Mesa</b>	11.00-11.20	37	Electronically Reconfigurable Active Metamaterials for 2D Beamsteering	Rafael F. S. Caldeirinha, João Reis, Mário Vala, André Sardo, Akram Hammoudeh and Nigel Copner	Instituto de Telecomunicações, Polytechnic Institute of Leiria, and University of South Wales
	11.20-11.40	24	Optimization of absorption by a metamaterial wormhole	Hugo Ferreira, Stanislav Maslovski and Nuno Brás	Instituto de Telecomunicações, Universidade de Coimbra
	11.40-12.00	31	Highly Selective Filter Design for the THz Domain using Frequency Selective Surfaces	J. P. Pavia, N. Souto, and M. A. Ribeiro	University Institute of Lisbon - ISCTE-IUL, Instituto de Telecomunicações
	12.00-12.20	15	Design and Fabrication of 3D-printed Non-Metallic chiral media	Ángel J. García-Collado, Gregorio J. Molina-Cuberos, José A. Acosta Martínez, Ismael Barba, José Margineda	Universidad Católica San Antonio, Universidad de Murcia, Universidad de Valladolid
	12.20-12.50	39	Information Security	Carlos Salema	Instituto de Telecomunicações
	12.50-14.30	<b>Lunch</b>			

## Wednesday afternoon, 16th May, **Session C**

Session	Time	No.	Title	Authors	Affiliation
<b>Theoretical Electromagnetics</b>  <b>14.30-16.10</b>  <b>Chair: Felipe Cátedra</b>	14.30-14.50	7	Overview of the Physical Meaning and Numerical Computation of the Zenneck Wave	Francisco Mesa and David R. Jackson	Universidad de Sevilla, University of Houston
	14.50-15.10	2	Higher Symmetries: A new degree of freedom for periodic structures	O. Quevedo-Teruel, G. Valerio, and Z. Sipus	KTH Royal Institute of Technology, Sorbonne Universités, Université Pierre et Marie Curie, University of Zagreb
	15.10-15.30	22	Ultra-singularities of the electromagnetic field in PTD invariant media	D. E. Fernandes, M. G. Silveirinha	Instituto de Telecomunicações, Universidade de Coimbra, Universidade de Lisboa
	15.30-15.50	5	Analysis of the scattering by the truncation of a two-dimensional semi-infinite array of dipoles	Miguel Camacho, Alastair P. Hibbins, Filippo Capolino and Matteo Albani	University of Exeter, University of California at Irvine, University of Siena
	15.50-16.10	23	Dynamic Dyadic Green Function Formalism for Dispersive Media	Hodjat Mariji, Stanislav I. Maslovski	Instituto de Telecomunicações, Universidade de Coimbra
	16.10-16.40	<b>Coffee Break</b>			

## Wednesday afternoon, 16th May, **Session D**

Session	Time	No.	Title	Authors	Affiliation
<b>Chiral and gyrotropic media</b>  <b>16.40-18.20</b>  <b>Chair: Jesús Rebollar</b>	16.40-17.00	27	Metasurfaces with Intrinsic and Extrinsic Chirality	O. Fernández, Á. Gómez, I. Barba, A. Grande, A. C. López-Cabeceira, J. Represa and A. Vegas	Universidad de Cantabria, Universidad de Valladolid
	17.00-17.20	17	“Electromagnetic transparency” in a two-phase topological material	Hafssaa Latioui, Mário G. Silveirinha	Instituto de Telecomunicações, Universidade de Lisboa
	17.20-17.40	25	Modelling and Optimization Techniques of Advanced Passive Waveguide Components with Polarization Control	Juan Córcoles, Raul V. Haro-Baez, Jorge A. Ruiz-Cruz, José R. Montejo-Garai, and Jesús M. Rebollar	Universidad Autónoma de Madrid, Universidad Politécnica de Madrid
	17.40-18.00	10	Circular Polarization Selection Using an Asymmetric SRR Mirror	Ismael Barba, Oscar Fernández, Álvaro Gómez, Ana Grande, Ana C. López-Cabeceira, José Represa	Universidad de Valladolid, Universidad de Cantabria
	18.00-18.20	36	Chern topological index as a “quantum” of the fluctuation-induced light-angular momentum	Mário G. Silveirinha	Instituto de Telecomunicações, Universidade de Lisboa

## Thursday morning, 17th May, **Session A**

Session	Time	No.	Title	Authors	Affiliation
<b>Antennas &amp; Equivalent Circuits</b>  <b>8.30-10.30</b>  <b>Chair: Gregório Molina-Cuberos</b>	8.30-8.50	3	Analysis and Design of Radomes for Monopulse System	Alvaro Somolinos, Jose-Luis García, Iván González, Felipe Cátedra	NewFasant, Alcala University
	8.50-9.10	21	Maximization of power received by a metamaterial rectenna	A. Abraray, S. Maslovski, T. R. Fernandes, A. Farkhsi, O. El Mrabet	Instituto de Telecomunicações, Universidade de Coimbra
	9.10-9.30	20	Methodology for designing dual-band single layer leaky wave antennas	Nausika Memeletzoglou, Darwin Blanco Montero, Eva Rajo-Iglesias	University Carlos III of Madrid, Delft University of Technology
	9.30-9.50	16	Equivalent Circuit Modelling of Non-Symmetric Reciprocal Lossy Electromagnetic Structures	Elena Abdo-Sánchez, Teresa M. Martín-Guerrero, Jaime Esteban, Carlos Camacho-Peñalosa	Universidad de Málaga, Universidad Politécnica de Madrid
	9.50-10.10	26	Conjugate-impedance matched metamaterials for application in superabsorbers	Iurii Medvedev, Hugo Ferreira, Stanislav Maslovski, Henrique A. Silva	Instituto de Telecomunicações, Universidade de Coimbra
	10.10-10.30	38	Numerical evaluation of integrated optical waveguides and microchannels in cascade	José Rodríguez and Adrián Fernández	Universidad de Oviedo
	10.30-11.00	<b>Coffee Break</b>			

## Thursday morning, 17th May, **Session B**

Session	Time	No.	Title	Authors	Affiliation
<b>Arrays</b>  <b>11.00-12.20</b>  <b>Chair: José Rodríguez-García</b>	11.00-11.20	14	Spectral domain MoM analysis of multilayered periodic structures containing split rings. Applications in the design of reflectarray antennas.	Rafael Florencio, Rafael R. Boix, Jose A. Encinar	Polytechnic University of Madrid, University of Seville
	11.20-11.40	29	Efficient full-wave assessment of high gain transmit-array antennas	Jorge P. Teixeira, Sérgio A. Matos, Jorge R. Costa, Carlos A. Fernandes	Instituto de Telecomunicações, Universidade de Lisboa, ISCTE-Instituto Universitário de Lisboa
	11.40-12.00	6	Simultaneous Synthesis of Arrays for Near Field Focusing and Far Field Constraints	Germán León, Marcos R. Pino, Paolo Nepa and Rafael G. Ayestarán	Universidad de Oviedo, Università di Pisa
	12.00-12.20	32	Modelling and Design methods for mmWave Phased Arrays	Ricardo Figueiredo, Pedro Pinho, and Nuno Borges de Carvalho	Universidade de Aveiro, Instituto de Telecomunicações, Instituto Superior de Engenharia de Lisboa
	12.20-14.30	<b>Lunch</b>			

## Thursday afternoon, 17th May, **Session C**

Session	Time	No.	Title	Authors	Affiliation
<b>Communication Channel and Signal Processing</b>  <b>14.30-15.50</b>  <b>Chair: Rafael Caldeirinha</b>	14.30-14.50	30	A graphene-inspired electromagnetic superlens	Sylvain Lannebère and Mário G. Silveirinha	Instituto de Telecomunicações, Universidade de Coimbra, Universidade de Lisboa
	14.50-15.10	13	Analysis of the Multipactor Effect With RF Pulsed Signals	D. González-Iglesias, O. Moneris, M. E. Díaz, B. Gimeno, V. E. Boria, D. Raboso, Á. Coves	University of Valencia, Val Space Consortium, Technical University of Valencia, European Space Agency, University Miguel Hernández of Elche
	15.10-15.30	28	Artifact removal based on SVD for microwave breast imaging	João M. Felício, José M. Bioucas-Dias, Jorge R. Costa, and Carlos A. Fernandes	Instituto de Telecomunicações, Universidade de Lisboa, ISCTE-Instituto Universitário de Lisboa
	15.30-15.50	4	Study on Negative Group Delay Properties of a Signal-Interference-Based Circuit	Miguel A. Sánchez-Soriano, Javier Durá, Stefano Sirci, Ángela Coves and Stephan Marini	Universidad de Alicante, Universitat Politècnica de València, Universidad Miguel Hernández de Elche
	15.50-16.20	<b>Coffee Break</b>			



## Thursday afternoon, 17th May, **Session D**

Session	Time	No.	Title	Authors	Affiliation
<b>Surface Integrated Waveguides and Plasmonics</b>	16.20-16.40	18	Modal Analysis of a Double-Sided Leaky-Wave Antenna in Substrate Integrated Waveguide Technology	Alejandro Javier Martinez-Ros, Fernando Quesada-Pereira, and Francisco Medina	Universidad de Sevilla, Universidad Politécnica de Cartagena
	16.40-17.00	9	Substrate Integrated Waveguide Filters Based on Periodic Perforations of the Dielectric Layer	Lorenzo Silvestri, Enrico Massoni, Cristiano Tomassoni, Ángela Coves, Maurizio Bozzi and Luca Perregrini	University of Pavia, Universidad Miguel Hernández de Elche
<b>16.20-18.20</b>					
<b>Chair: Eva Rajo-Iglesias</b>	17.00-17.20	1	An Efficient Methodology for SIW Circuits Analysis	Jesús Rubio, Alfonso Gómez García, Rafael Gómez Alcalá, Yolanda Campos-Roca, Jesús García, Miguel A. González, José Ma. Gil, Juan Zapata	Universidad de Extremadura, Universidad Politécnica de Madrid
	17.20-17.40	33	Diverging number of guided mode branches in a wire-medium slab	Solange V. Silva, Tiago A. Morgado, Mário G. Silveirinha	Instituto de Telecomunicações, Universidade de Coimbra & Lisboa
	17.40-18.00	35	Some notes about the EM simulation of spoof surface plasmon polaritons	Mario F. Pantoja, Miguel Ruiz-Cabello Nuñez, A. Rubio Bretones, S. Gonzalez Garcia, and R. G. Martin	University of Granada
	18.00-18.20	19	Unidirectional surface plasmons in drift-current biased graphene	Tiago A. Morgado, Mário G. Silveirinha	Instituto de Telecomunicações, Universidade de