	Wednesday January 17th	Thursday January 18th	Friday January 19th	
08:30-08:45	**REGISTRATION**			
08:45-09:00	**OPENING**			
09:00-09:40	***AI METHODS AND APPLICATIONS. Chair person: Pilar Latorre*** **KEYNOTE SPEAKER: Sofia Teixeira, Universidade de Lisboa** *Exploring AI and Network Science for Mental Health*	***AI METHODS AND APPLICATIONS. Chair person: Alberto Aleta*** **KEYNOTE SPEAKER: Miguel Rocha, Universidade do Minho** *Supervised and generative deep learning models to predict the activity and to design novel compounds and proteins.*	***AI METHODS AND APPLICATIONS. Chair person: Andreia Sofia Teixeira*** **KEYNOTE SPEAKER: Alex Rayón, University of Comillas** *Emergent abilities in LLMs: myth or truth?*	09:00-09:40
09:40-10:00	**INTERDISCIPLINARY SESSION: Luis Martín Moreno** *An Overview of Applications of Deep Learning in Science*	**Miguel A. Vela-Tafalla.** *Genre networks through hyperlinking in science and technology articles written by experts for non-specialized audiences*	**Joaquín J. Torres** *Associative Memory in Dissipative Quantum Neural Networks*	09:40-10:00
10:00-10:20	**Juan Luis Durán Batalla** *Information Retrieval and Keyphrase Extraction with the aid of LLMs*	**SPONSOR SESSION: Miguel Fajardo, DELL Technologies** *The AI Boom. A new scenario, a new way of doing things & the role of Dell Tech.*	**Rafael Tolosana** *The AIoD: The European AI On-Demand Platform and Ecosystem*	10:00-10:20
10:20-10:40	**Sergio Sabroso** Deciphering Pancreatic Ductal Adenocarcinoma progression from AI	**Miguel A. Benítez-Castro.** *Nutcracker, a semi-supervised algorithm for the detection and tackling of online radicalization and extremism*	**AI METHODS AND APPLICATIONS.** **KEYNOTE SPEAKER:** **Beatriz Seoane, Université Paris-Saclay** *Statistical Physics of Energy-Based generative models*	10:20-10:40
10:40-11:00	**Douglas V. Laurents** *ML Programs and NMR Spectroscopy as Partners to Understand Proteins*	**Pablo Calvo-Barlés** Finding discrete symmetries in data via Machine Learning		10:40-11:00
11:00-11:30	**COFFEE BREAK** **(Torres Quevedo Building)**	**COFFEE BREAK** **(Torres Quevedo Building)**	**COFFEE BREAK** **(Torres Quevedo Building)**	11:00-11:30
11:30-12:10	***AI AND STATISTICAL MODELING. Chair person: Ana Cebrián*** **KEYNOTE SPEAKER: Paula Gordaliza, Universidad de Navarra** *Ensuring stability in the assessment of algorithmic fairness*	***AI APPLICATIONS IN BIOMEDICINE. Chair person: Beatriz Herquedas*** **KEYNOTE SPEAKER: Noelia Ferruz, Barcelona Institute of Molecular Biology** *Controllable protein design with unsupervised language models*	***AI APPLICATIONS IN BIOMEDICINE. Chair person: Noelia Ferruz*** **INTERDISCIPLINARY SESSION: I. Marchante** *A role for ML on contemporary Biomedical research.*	11:30-11:50
			Jonathan Frazer. *Increasing the diagnostic yield of patient sequencing with proteome-scale probabilistic modelling*	11:50-12:10
12:10-12:30	**INTERDISCIPLINARY SESSION: Luis Mariano Esteban.** *Modern machine learning methods: a combination of statistical models and advanced algorithms*	**Xavier de la Cruz.** When future is now: the rising contribution of AI to the clinical understanding of genetic variability	**Helena García-Cebollada** *Protposer: when machine learning and protein stabilization meet*	12:10-12:30
12:30-12:50	**Rocío Aznar Gimeno.** *AI and Statistics for Disease Prevention: Practical Cases, Challenges, and Achievements*	**Carlo Manzo** *Decoding Microscopic Dynamics through Graph Inductive Knowledge*	**Sonia Hermoso-Durán.** ML in Thermal Liquid Biopsy of Intracystic Fluid Samples: A New Tool for Presurgical Diagnosis of Pancreatic Cystic Lesions.	12:30-12:50
12:50-13:10	**Zeus Gracia-Tabuenca** *Predicting depression risk in early adolescence using brain imaging*	**Paulino Gómez-Puertas.** *Molecular dynamics simulations: Applications to the study of macromolecular function and drug design*	**Borja Requena** *Inferring pointwise diffusion properties of single trajectories with deep learning*	12:50-13:10
			Javier Orera. *Application of forward PINN solvers to the modelling of transient blood flow in vessels*	13:10-13:30
13:10-15:00	**LUNCH**	**LUNCH**	**CLOSING REMARKS**	13:30-13:45
15:00-15:20	***AI AND STATISTICAL MODELING. Chair person: Gerardo Sanz*** **Fernando Lahoz** *Analysis of Random Laser signal in tissues for diagnosis*	***AI APPLICATIONS IN PHYSICS. Chair person: Beatriz Seoane*** **KEYNOTE SPEAKER: Roger Guimerà, Universitat Rovira i Virgili** *Bayesian symbolic regression and the learnability of closed-form mathematical models*		
15:20-15:40	**Aurea Grané** *A compared protocol to improve clustering procedures*			
15:40-16:00	**Manuel Soláns** AI for vehicle manufacturing sequence controlling.	**INTERDISCIPLINARY SESSION: Quercus Hernández** *An overview of deep learning methods for physics simulations*		
16:00-16:20	**Estela Aguilar.** *Analysis of prediction models to enhance urban bus transportation services through ML techniques*	**Pilar García-Navarro.** *AI-driven computational tools and optimization strategies for hydro-morphodynamic risk prediction & climate change analysis*		
16:20-16:40	**Nicolas Béreux.** *Learning a Restricted Boltzmann Machine using biased Monte Carlo sampling*	**Gabriel Gomila** *Scanning dielectric microscopy assisted by machine learning*		
16:40-17:00	**Francisco Javier López.** *Analyzing the influence of congestion in user satisfaction: evidence from reviews*	**Sergio G. Rodrigo** *Solving differential equations with neural networks*		
17:00-17:30	**COFFEE BREAK** **(Lobby I+D Building)**	**COFFEE BREAK** **(Torres Quevedo Building)**		
17:30-17:50		***AI APPLICATIONS IN PHYSICS. Chair person: Pilar García-Navarro*** **Pablo F. Garrido.** *Human navigation in VR environments by time series clusterization analysis*		17:30-17:50
17:50-19:10	**POSTER SESSION** **Lobby I+D Building**	**Alexandre Wagemakers** *Deep Learning-based Analysis of Basins of Attraction*		17:50-18:10
		Miguel Ruiz-García. *Out-of-equilibrium machine learning: Dynamical loss functions and catastrophic forgetting*		18:10-18:30
	BIFI COUNCIL (BIFI members only)	**Aurélien Decelle.** Bipartite Neural Network: effect of non-linearities in the encoding latent variables		18:30-18:50
		Gabriel Fernández-Fernández. *Learning Minimal Representations of Stochastic Processes with Variational Autoencoders*		18:50-19:10
		SOCIAL DINNER (21:00)		

Legend
AI: METHODS & APPLICATIONS
AI & STATISTICAL MODELING
AI APPLICATIONS IN PHYSICS
AI APPLICATIONS IN BIOMEDICINE