





CMUP ANNUAL MEETING

9 February 2026

Room: FC1 0.31

Hour	Speaker	Title and abstract
9:30—10:15	<p>Flora Ferreira (FEP, CMUP)</p> 	<p>Topological Feature Extraction from Time Series: Gait Applications</p> <p>Topological data analysis (TDA) provides geometric and topological tools for extracting shape based features from time series. In this talk, I outline a pipeline that employs persistent homology and related descriptors to characterize temporal structure. I then present recent studies in which topological features were integrated with machine learning classifiers using gait time series data.</p>
10:20—11:10	<p>Rui Ferreira (FCUP, CMUP)</p> 	<p>Mittag-Leffler functions in Fractional Calculus</p> <p>We make a light presentation of our most recent findings on the Mittag-Leffler function, or its generalizations, and their connections with fractional differential/difference equations.</p>
	Coffee-Break	
14:30—15:20	<p>José Machado (Universidade do Minho, Algoritmi, LASI)</p> 	TBA
	Coffee-Break	
15:45—16:30	<p>André Marçal (FCUP, CMUP)</p> 	<p>Image Processing, Mathematics, Art - Gerhard Richter's 1024 Colours</p> <p>The interdisciplinary context of the work, related to Image Processing, Mathematics and Art, is initially addressed. A brief description of colour models is then presented, followed by the main case study, entitled "Gerhard Richter's 1024 Colours - some interesting permutations".</p>