



Pierre-François MARTEAU

Full Professor
Computer Science

“ *Abnormality is the anomaly of normalcy unless it's the other way round. Identifying the anomaly is often the preamble to disruptive discoveries.* ”

BIO

After obtaining an engineering degree in computer science at the École Nationale Supérieure d'Electronique et d'Informatique de Bordeaux (ENSEIRB-MATMECA), then a PhD at the Institut national polytechnique de Grenoble in 1988, Pierre-François Marteau held a post-doctoral position at the University of Geneva, then at the INLS of the University of California (San Diego). Following a stint at the Institut des Hautes Etudes Scientifiques, he worked as a consultant at Bertin Technologies, before joining University Bretagne Sud in 1999. His work focuses on algorithmic approaches of artificial intelligence for pattern recognition in temporal and sequential data. He develops applications in the fields of information flow processing, particularly in a context of computer security and the processing of data from multi-modal sensors and text mining collected on the web and social networks.



Link to full biography



50% of the researcher's activity
devoted to cybersecurity

Focus :

Research

Application field

Area(s) of research

Anomaly and intrusion detection

Data processing in flow and time series (classification, regression, clustering)

Motion analysis and gesture recognition

Textual data mining

Fields of expertise

Algorithms and complexity

Signal processing and pattern recognition

Natural language processing

Applicative examples

Several algorithms for intrusion detection and algorithmic efficiency: DiFF-RF (network traffic monitoring), STree4CS (event sequencing for attack detection), PSS-Phase Shape Separation (handwritten signature authentication by analyzing time and shape patterns).

Domain

Computer Science,
discrete mathematics

Keywords

Artificial Intelligence

Statistical learning

Data Mining

Pattern recognition

Anomaly detection

Time series analysis

Text data processing

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