Mathematical tools applied to Digital Forensic

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Fuzzy sets and fuzzy logic were introduced by Lotfi Zadeh in the sixties, as a mathematic framework for modeling uncertainty, imprecise and incomplete data in information systems. This theory has been fulfilled applied in a lot of frameworks, such as in decision making, data mining, pattern recognition, optimization, and control, and, in particular, in credit card fraud detection, intrusion detection, pass authentication, image forensics, network forensics, etc.

This talk will be focused on different mathematical tools developed by the Research Group Mathematics for Computational Intelligence Systems (M·CIS), such as, formal concept analysis, rough set theory and logic programming, which have been enriched with the use of fuzzy sets. Moreover, different possible application to Digital Forensic will be presented.