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**Title of Invited Talk: Fuzzy sets in clustering: exploring and modelling data**

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**Abstract:** Clustering is often classified as an unsupervised machine learning approach. It has been extensively used for data analysis. It permits us to extract some structure from a data set. Clustering can be applied to all types of data.

A larger number of clustering algorithms have been proposed differing on the type of data we have and the type of structure we extract from the data. The type of structure in use has naturally implications on how we represent membership of objects to the structure, and also on how we assign (classify) new objects to the structure. Fuzzy sets (including its variants) have been used for building data models. In particular, fuzzy partitions (fuzzy c-mean like, possibilistic), I-fuzzy and H-fuzzy partitions are examples of structures used to represent the output of fuzzy clustering.

In this talk we will give an overview of our results related to fuzzy clustering and fuzzy partitions, and show their application to the area of data privacy.

#### **References:**

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