

Curriculum Vitae

Attilio Giordana is Full Professor of Computer Science at the University of Piemonte Orientale, Italy.

In 1984, he entered the area of Machine Learning, where he obtained the major scientific achievements. Together with Lorenza Saitta and few other Italian scientists, he has been the co-founder of the Italian special interest group in Machine Learning. His initial interest focused on inductive symbolic approaches for learning First Order Logic decision rules. The system, Smart+, is the most significant outcome of this research phase. Beyond its competitive performances, Smart+ has been the first one in the literature to integrate a relational database with a deductive/inductive module, anticipating solutions that are found today, in the most recent data mining environments.

Afterwards, his research interest widened, considering other learning approaches such as Genetic Algorithms and Sub-symbolic paradigms, in particular the Radial Basis Functions Networks. The most important contributions in this area are related to the integration of the symbolic learning techniques with numeric and stochastic techniques.

Since 1999, Prof. Giordana started working in computational aspects of relational learning. The original contribution in this area, developed in collaboration with Lorenza Saitta and other colleagues, is represented by the novel approach to the analysis of the complexity of the learning algorithms, based on the phase-transition paradigm. The fundamental result originated by this research is the discovery of strong limitations for all heuristics commonly used to guide relational learners through the hypothesis space.

After 2002, Prof. Giordana's major research interest is in sequence/time series analysis. The major achievement consists of a new multi-strategy algorithm, which is able to learn a Hierarchical Hidden Markov Model from a database of sequences.

Recently Prof. Giordana co-founded a new university spin-off called "Penta Dynamic Solutions", where he is actively applying AI techniques in order to implement "smart-homes".

The whole research activity is documented by two books, he co-authored, and by more than 130 papers in journals, books and peer-reviewed international conferences.