MACHINE LEARNING
~Special Issue Call for Papers~

“Discovery Science”

Guest Editors:
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The Machine Learning journal invites submissions on Discovery Science - a research discipline concerned with the development and analysis of methods for discovering scientific knowledge, coming from machine learning, data mining, and intelligent data analysis, as well as their applications in various scientific domains. Submissions focusing on the analysis of different types of complex data, such as structured, spatio-temporal, network and social-network data are welcome. Submissions addressing applications in scientific domains, such as environmental and life sciences are also welcome. Finally, submissions from the areas of computational scientific discovery, mining scientific data, computational creativity and discovery informatics are encouraged.

Topics of interest:

- computational scientific discovery
- data mining and knowledge discovery
- machine learning and statistical methods
- computational creativity
- mining scientific data
- data and knowledge visualization
- knowledge discovery from scientific literature
- mining text, unstructured and multimedia data
- mining structured and relational data
- mining temporal and spatial data
- mining data streams
- network analysis
- discovery informatics
- discovery and experimental workflows
- knowledge capture and scientific ontologies
- data and knowledge integration
- logic and philosophy of scientific discovery
- applications of the above methods in various scientific domains (e.g., bioinformatics, system biology, and climate informatics)

Papers which, at the time of submission, have appeared in archived conference proceedings (e.g. in Discovery Science 2015) will be considered provided that the submission contains at least 30% of new material (i.e. important additional empirical results, or extensions of the method, etc.) compared to the conference version of the paper. Authors of such submissions will be required to enclose a letter, discussing in detail the differences between the two versions of their MLJ submission. The editors reserve the decision as to whether the 30% difference requirement is met. Please, also note that the authors of such papers should only provide a reference to the preliminary conference version in their accompanying letter and in the reference section of their article, but not in the body of the article.