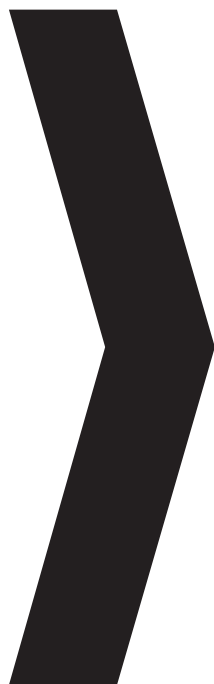


The **CoSCo**

research group



Complex Systems Computation Research Group (University of Helsinki and Helsinki Institute for Information Technology) investigates computational modeling issues in complex systems, and the related implementation aspects, focusing on prediction and model selection tasks. The research areas addressed include probabilistic modeling and data analysis, information theoretical approaches to inference, theoretical and empirical validation of on-line prediction algorithms, and the theory of case-based reasoning. The work has both a strong basic research component, being at the intersection of computer science, information theory and mathematical statistics, and an applied component where the results are used for solving problems in various disciplines from social sciences, criminology, ecology and medicine to industrial engineering. Focus areas in the applied research include next generation information retrieval for the internet, context-awareness for ubiquitous computing, technology for networked learning environments, modeling for location-aware services and sensor networks. Related to these activities, CoSCo maintains several Web-services including the B-Course data analysis server (<http://b-course.hiit.fi/>) and MDL research page (<http://www.mdl-research.org/>). International and national cooperation includes joint work with University of California, Berkeley (USA), Tsinghua University (People's Republic of China), cwi (the Netherlands), CERN (Switzerland), Media Lab Europe (Ireland), University of Tampere (Finland), and with the various institutes of the EU PASCAL Network of Excellence.

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