

Fast Multimedia Stream Data Mining

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Abstract. In our days, huge and still increasing amounts of data are collected from scientific experiments, sensor and communication networks, technical processes, business operations and many other domains. Database and data mining techniques aim at efficiently analyzing these large and complex data to support new insights and decision making based on the extraction of regular or irregular patterns hidden in the data. Current research trends in data analytics are driven by the high volume, velocity, and variety of Big Data.

The talk discusses some challenges in the field. In recent developments for dynamic stream data mining, anytime algorithms play an important role. Novel hierarchical, statistical indexing structures including BayesTree and ClusTree allow for obtaining high quality results at any time while adapting themselves to varying stream velocities. Particular challenges occur when supervised and unsupervised mining tasks are faced with multimodal streams of complex multimedia objects.

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