

Development and Applications of Graph Signal Processing

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Abstract: Traditional signals are typically quantities defined in time or space. In particular, discrete signals are usually obtained from measurements in regular intervals of such domains. However, this is too restrictive when applied to signals in sensor networks, biological networks and social networks. These signals are more readily defined on a graph that specifies the relationship between nodes on these networks. In the last few years, processing signals on graphs has gained a lot of interest among researchers. In this talk, an overview of the basics of graph signal processing is given, relating its techniques to traditional signal processing. Emphasis will be placed on the current state and potential future development of the theory and applications.