

Kolloquium der Informatik

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spricht über: "Handwritten Mathematical Expression Recognition"

am 11.12.2013 um 17:00h

Abstract: With the advent of new touch screen based devices, there is a renewed interest in handwriting recognition. In this talk I will first present an overview of the main issues in recognition of online handwritten mathematical expressions, from symbol segmentation, symbol identification, structural analysis, to recognition evaluation. Then I will discuss about the importance of approaches that treat these subproblems in an integrated way, both to solve ambiguities as well as to explore contextual information. The challenge is then how to integrate the methods that tackle individual subproblems and respective contextual information in an effective way and, at the same time, keep the generality and flexibility with regard to types of notations and set of symbols. To illustrate the idea of a general and flexible method, I will present an expression matching method we have proposed recently that helps the creation of training/testing datasets by automating the task of attaching ground-truth to expression samples. I will conclude presenting a summary of what I believe are the current challenges and related research opportunities.