Contributions to the analysis of approximate counting

Approximate counting is a classical technique in computer science to handle large quantities of data with limited capacities. Over the course of several decades, Helmut Prodinger has contributed significantly to the analysis of this method. His work was instrumental in developing the mathematical toolkit required for the challenging asymptotic analysis of approximate counting and its performance parameters, and many ideas can also be applied to related topics such as digital search trees. A variety of different mathematical tools play a role in this context, and surprising connection to seemingly unrelated topics as q-analysis and partition theory can be found.

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