



FACULTY
OF MATHEMATICS
AND PHYSICS
Charles University

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Advisor's report on doctoral thesis of Pavel Dvořák

Doctoral thesis of Pavel Dvořák contains multiple results related to proving lower bounds for various models of computation such as communication complexity and data structures, and other results on complexity of cryptographic card-based protocols. Most of the results already appeared in highly selective conferences such as 2xSTACS, ESA, FSTTCS. Several of them have significant technical depth and represent substantial research achievements. Additionally, Pavel Dvořák has published several other papers on different topics in high-quality venues. This shows a substantial breadth of his research interests.

Although many of his papers are joint papers with other collaborators, he has made a substantial contribution to each of them. Indeed, for example the lower bound for Greater-Than which was a major part of a joint STACS paper with several co-authors including me was entirely his. During his studies Pavel started independent collaboration with several researchers abroad and he regularly visited other places. His recognition is witnessed by an invitation to give talks at various seminars and workshops including a Dagstuhl workshop. Pavel Dvořák is also very active in organizing scientific events for others including annual workshops such as KAMAK, weekly meetings KAM-pauza, and major international conferences such as MFCS. During his doctoral studies he clearly demonstrated that he is an independent researcher capable of carrying out original research.

For all those reasons I strongly support accepting the presented thesis as a doctoral thesis and recommend awarding him the doctoral degree.

Sincerely,

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