



Editorial

Preface: Special graph classes and algorithms – in honor of Professor Andreas Brandstädt on the occasion of his 65th birthday



With this special issue of *Discrete Applied Mathematics*, the Special Graph Classes community celebrates the career and achievements of Prof. Dr. Andreas Brandstädt on the occasion of his 65th birthday.

Andreas Brandstädt graduated from the Friedrich-Schiller University Jena (Germany) with a Ph.D. in stochastics in 1976 and a Habilitation in complexity theory in 1983. Since the early eighties his main research interests were in the structural and algorithmic properties of graph classes. He was a professor at the University of Duisburg (1991–1994) and the University of Rostock (1994–2014).

Throughout his long career, Andreas Brandstädt contributed to a diverse variety of research fields in theoretical computer science and discrete mathematics. Among his contributions to the field of efficient algorithms on special graph classes, the main and frequently reappearing topics are domination and variants, hypertree structures, the Helly property, maximum weight independent sets, induced matchings, clique-width, leaf powers, powers of graphs, LexBFS-orderings, convexity, tree spanners, distance approximating trees, Hamiltonian problems, clique separators, and stable cutsets. He also enriched our understanding of the combinatorial structure of many important classes of graphs including chordal, chordal bipartite, strongly chordal, dually chordal, HHD-free, distance-hereditary, (claw,net)-free, convex bipartite, permutation, and many other structured families of graphs.

Andreas Brandstädt is one of the authors of *Graph Classes: A Survey* (SIAM 1999) on which he had been working since the late eighties. He was a long-time member of the steering committee of the International Workshop on Graph-Theoretic Concepts in Computer Science (WG) and he organized three WG conferences (Boltenhagen 1991, Jena 2007, and Lübeck 2012). The Dagstuhl-Seminars organized by him were a meeting place for the graph class community. He also co-organized the ODSA Conference (Optimal Discrete Structures and Algorithms, Rostock 1997, 2000, 2006 and 2010).

Papers in this special issue represent most aspects of theoretical computer science and discrete mathematics related to the research areas in which Andreas Brandstädt has been involved. These include graph and hypergraph classes with special combinatorial structures as well as efficient algorithms on structured families of graphs.

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