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# Graph Theory

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This book contains the successful invited submissions [1–10] to a special issue of *Symmetry* on the subject area of 'graph theory'.

Although symmetry has always played an important role in graph theory, in recent years, this role has increased significantly in several branches of this field, including, but not limited to: Gromov hyperbolic graphs, metric dimension of graphs, domination theory, and topological indices. This Special issue invites contributions addressing new results on these topics, both from a theoretical and an applied point of view.

This special issue includes the novel techniques and tools for graph theory, such as:

- Local metric dimension of graphs [1].
- Gromov hyperbolicity on geometric graphs [2,3,5].
- Beta-differential of graphs [4].
- Path ordinal method [6].
- Neural networks on multi-centrality-index diagrams [7] and complex networks [8].
- Connectivity indices and movement directions at path segments [9].
- Independent (1, 2)-sets in cylindrical networks [10].

The response to our call had the following statistics:

- Submissions (40);
- Publications (10);
- Rejections (30);
- Article types: Research Article (10);

Our authors' geographical distribution (published papers) is:

- Spain (8)
- Japan (4)
- Mexico (4)
- Austria (2)
- Korea (2)
- Luxembourg (1)
- Poland (1)
- Egypt (1)

Published submissions are related to local metric dimension, Gromov hyperbolicity, differential, path ordinal method, neural networks, connectivity indices, and independent sets, as well as their applications.

We found the edition and selections of papers for this book very inspiring and rewarding. We also thank the editorial staff and reviewers for their efforts and help during the process.

**Conflicts of Interest:** The author declares no conflict of interest.

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