

Graph Theory

Nguyễn Quân Bá Hồng¹

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¹Independent Researcher, Ben Tre City, Vietnam
e-mail: nguyenquanbahong@gmail.com

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Chapter 1

Wikipedia's

1.1 Wikipedia/Graph Theory

Fig. A **drawing** of a graph.

“In mathematics, *graph theory* is the study of **graphs**, which are mathematical structures used to model pairwise relations between objects. A graph in this context is made up of **vertices** (also called *nodes* or *points*) which are connected by **edges** (also called *links* or *lines*). A distinction is made between *undirected graphs*, where edges link 2 vertices symmetrically, & *directed graphs*, where edges link 2 vertices asymmetrically. Graphs are 1 of the principal objects of study in **discrete mathematics**.

1.1.1 Definitions

1.1.1.1 Graph

1.1.1.2 Directed graph

1.1.2 Applications

1.1.2.1 Computer science

1.1.2.2 Linguistics

1.1.2.3 Physics & chemistry

1.1.2.4 Social sciences

1.1.2.5 Biology

1.1.2.6 Mathematics

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1.1.4.1 Visual: Graph drawing

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