

# Simple Graphs

A **self-loop** is an edge from a vertex to itself (i.e., edges  $(v, v)$ ).

**Parallel edges** are multiple occurrences of the same pair (i.e.,  $(u, v)$  appearing more than once).

A **simple graph** is one that has no parallel edges and no self-loops.

Unless stated otherwise, all graphs in this class should be assumed to be finite, simple, undirected graphs.