

A Sample Article

MathNotebook

Set with the `article` class, in Latin Modern.

Abstract

The same document as the ArXivArticle notebook sample, typeset in LaTeX, so the two can be compared side by side: title block, sectioning, theorem environments numbered per section, displayed equations, and a bibliography.

1 Statement

Definition 1.1. *A graph is a pair (V, E) with E a set of unordered pairs of distinct elements of V .*

Theorem 1.2. *The theorem environments share one counter, so this theorem follows the definition above and both reset at the next section.*

$$\sum_{v \in V} \deg(v) = 2|E| \tag{1}$$

Proof. Summing degrees counts every edge twice. □

2 Displayed mathematics

An unnumbered display, for an aside:

$$\chi(G) \leq \Delta(G) + 1$$

Inline mathematics sits in text at the surrounding size, as in $e^{i\pi} = -1$, and a numbered display is referenced by the live number the palette copies, as in (2).

A numbered display, aligned as an `align` environment converts:

$$\partial\omega = 0 \tag{2}$$

$$\omega \wedge \omega = -\omega \wedge \omega \tag{3}$$

3 Subsections

3.1 A subsection

Subsection and subsubsection headings are numbered within their parent and reset with it.

3.1.1 A subsubsection

Remark 3.1. Remark, Question, and Observation are set like this one — italic label, upright body.

References

- [1] S. Horvat, *MaTeX: LaTeX labels in Mathematica*,
<https://github.com/szhorvat/MaTeX>
- [2] Y. Ollivier, *Ricci curvature of Markov chains on metric spaces*,
<https://arxiv.org/abs/0810.5625>