mathwrap

A LaTeX package to improve line-breaking in inline math mode

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1 Introduction

By default, LaTeX strongly avoids breaking lines inside inline math (`$...$`), frequently resulting in "Overfull `\hbox`" warnings for long lists or sequences. The mathwrap package modifies the math-mode comma and adjusts penalty parameters to allow breaks where appropriate, without affecting display math environments.

2 Installation

Place `mathwrap.sty` in your project directory or local `texmf` tree.

3 Usage

Load the package in your preamble:

```
\usepackage{mathwrap}
```

3.1 Package Options

By default, mathwrap lowers `\binoppenalty` and `\relpenalty`, and increases `\emergencystretch`. You can disable these global changes if they conflict with your document class:

- `nopenalties`: Disables adjustments to `\binoppenalty` and `\relpenalty`.
- `nostretch`: Disables adjustments to `\emergencystretch`.

Example:

```
\usepackage[nopenalties,nostretch]{mathwrap}
```

3.2 Commands

Activating the comma can occasionally conflict with parser-reliant packages (e.g., TikZ, pgfplots, siunitx). You can toggle the package behavior locally to resolve compilation errors inside specific environments:

- `\mathwrapOff` : Restores the standard math comma.
- `\mathwrapOn` : Reactivates the mathwrap comma.

Example workaround for TikZ:

```
\mathwrapOff
\begin{tikzpicture}
  \draw (0,0) -- (1,1);
\end{tikzpicture}
\mathwrapOn
```

4 License

This package is released under the LaTeX Project Public License (LPPL), version 1.3c or later.