

Template demonstrating the quantumview document class

Johannes Jakob Meyer^{1,2}

¹Dahlem Center for Complex Quantum Systems, Freie Universität Berlin, 14195 Berlin, Germany

²QMATH, Department of Mathematical Sciences, Københavns Universitet, 2100 København Ø, Denmark

December 8, 2021

1 Introduction

Quantum Views is Quantum’s venue for perspectives, views, editorials and other opinion pieces. The publishing process is different from that of regular articles in Quantum because Views are published as *HTML only*, and need not be uploaded to the arXiv.

Quantum provides the quantumview documentclass to enable authors of Views to use their common LaTeX environment to prepare their contributions. The editors at Quantum can then generate the HTML output by supplying the `html` option.

2 Supported Formatting Options

The documentclass natively supports the following operations:

Text formatting The following text formats are supported: *emphasis*, *italic*, **bold**, `typewriter`, ^{superscript} and _{subscript}.

Sectioning Sectioning – if needed – can be performed using the regular `\section`, `\subsection`, `\subsubsection` and `\paragraph` commands. These will be converted to HTML header tags and therefore not show section numbers in the final HTML.

Citations and Bibliography You can cite references using the regular `\cite` command. For example, here is some text citing a textbook [1], a journal article [2], a newer preprint [3] and a journal article whose preprint has an arXiv identifier in old format [4].

Please see quantumview-template.bib for an example of how to provide bibliographic information to BibLaTeX in a way that yields a suitable bibliography with DOI links. In both Quantum and Quantum Views all citations

to cited works that have a DOI must include a hyperlink to the DOI of the work.

Formulas You are free to use inline math $\mathcal{Z} - \pi = \nabla\Gamma$ and both the `equation`

$$\int_0^1 dx |\psi(x)\rangle\langle\psi(x)| = \hat{O}^2 \tag{1}$$

and `align` environment

$$\oint_C = \mathcal{Z}^2. \tag{2}$$

As formulas are directly rendered on the webpage, *you can not use custom commands and libraries*. If you are unsure whether or not the command you want to use is supported, please consult the MathJax documentation. You should thus refrain from using the `\label` and `\ref` commands.

Lists You are free to use both `itemize` for unordered lists,

- Item 1 lorem ipsum
- Item 2

and `enumerate` for ordered lists:

1. Item 1
2. Item 2

Note that further modifiers, *e.g.* for roman numbering and additional packages like `enumerate` are not supported.

3 Copy-Editing Tools

The `quantumview` document class also provides commands that are useful in copy-editing. These are `\corr` for ~~eorreetons~~corrections and `\ins` for ~~ins~~insertions.

References

- [1] Michael A. Nielsen and Isaac L. Chuang. “Quantum Computation and Quantum Information”. Cambridge University PressCambridge, U.K. (2000).
- [2] John Preskill. “Quantum Computing in the NISQ era and beyond”. Quantum **2**, 79 (2018). [arXiv:2007.01307](#).

- [3] Emanuel Schwarzhans, Maximilian P. E. Lock, Paul Erker, Nicolai Friis, and Marcus Huber. “Autonomous temporal probability concentration: Clockworks and the second law of thermodynamics” (2020). [arXiv:2007.01307](#).
- [4] Antonio Acín, Dagmar Bruß, Maciej Lewenstein, and Anna Sanpera. “Classification of Mixed Three-Qubit States”. *Phys. Rev. Lett.* **87**, 040401 (2001). [arXiv:quant-ph/0103025](#).