# Documentation of quantumarticle.cls

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#### 1 Introduction

The quantumarticle document class is suggested for papers that are gonna be submitted to Quantum – the open journal of quantum science. It is based on the widely used article document class and designed to allow a seamless transition from documents typeset with article, revtex and elsarticle document classes.

#### 2 Typesetting documents

- 2.1 title
- 2.2 Figures
- 2.3 Tables

### 3 Package options

The quantumarticle document class provides a multitude of package options that change the appearance of the final document to the liking of the user.

Default options that need not be given are marked with (\*). Options that are only provided for compatibility reasons and that will not alter the typesetting of the document are written in gray font.

#### 3.1 Document setup

#### 3.1.1 Document format

The document class does not specify a default document format, an error is raised if none is specified.

Option	Description
a4paper	Sets the paper size to ISO A4.
a5paper	Sets the paper size to ISO A5.
b5paper	Sets the paper size to ISO B5.
letterpaper	Sets the paper size to ANSI Letter.
legalpaper	Sets the paper size to ANSI Legal.
executivepaper	Sets the paper size to ANSI Executive.

#### 3.1.2 Orientation

By default, the orientation is portrait.

Option	Description
landscape	Sets the orientation of the document to landscape.

#### 3.1.3 Fontsize

By default, the fontsize is 10pt.

Option	Description
10pt (*)	Sets the normal fontsize to 10pt.
11pt	Sets the normal fontsize to 11pt.
12pt	Sets the normal fontsize to 12pt.

#### 3.1.4 Sides

By default, the setting is oneside.

Option	Description
oneside (*)	Prepares the document as onesided.
twoside	Prepares the document as two sided.

#### 3.1.5 Titlepage

By default, the document class is typset with no extra titlepage.

Option	Description
titlepage	Displays the title on a separate titlepage.
notitlepage	Displays the title on the same page as the text.

#### 3.1.6 Draft

By default, the document class is typset as final.

Option	Description
draft	Marks the document as a draft.
final (*)	Does not mark the document as a draft.

#### 3.2 Style options

#### 3.2.1 Equations

By default, equations are typset centered, with equation numbers on the right. TODO: Clear fleqn behaviour

Option	Description
fleqn	Display equations left aligned.
leqno	Display equation numbers to the left of the equation.

#### 3.2.2 Bibliography

Option	Description
openbib	TODO: Find out what openbib does.

#### 3.3 Pre-loaded packages

The document class only loads packages necessary for its operation, such as **geometry** or **hyperref**. For compatibility reasons, there are commands that load certain widely used classes for the user.

amsmath	Load the package amsmath.
noamsmath	Don't load the package amsmath.

#### 3.4 Publication

By default, all documents that are created with the quantumarticle document lass are treated as possible submissions to Quantum.

Option	Description
accepted=YYYY-MM-DD	Adds the note 'Accepted in Quantum YYYY-MM-DD' to the document.
unpublished	Intended for works that are not published in Quantum. Disables all Quantum-
	related branding.
noarxiv	Intended for works that are not meant to be uploaded to the arXiv. Disables all
	arXiv-related sanity checks in the document. This option also sets unpublished.

#### 3.5 Compatibility

The quantumarticle class aims to be maximally compatible with documents that were previously typset with other document classes. For this reason, a lot of options are present for the sole purpose of compatibility but don't have an effect on how your document will be typset. These include:

Option	Description
checkin	No effect.
preprint	<u> </u>
reprint	<u> </u>
manuscript	— » —
noshowpacs	"
showpacs	"
showkeys	n
noshowkeys	<u> </u>
balancelastpage	<u> </u>
nobalancelastpage	"
nopreprintnumbers	"
preprintnumbers	"
hyperref	— » —
bibnotes	— » —
nobibnotes	<u> </u>
footinbib	<u> </u>
nofootinbib	<u> </u>
altaffilletter	<u> </u>
altaffilsymbol	<u> </u>
superbib	<u> </u>
citeautoscript	<u> </u>
longbibliography	<u> </u>
nolongbibliography	— n —
eprint	<u> </u>
noeprint	<u> </u>
author-year	<u> </u>
numerical	<u> </u>
galley	<u> </u>
raggedbottom	<u> </u>
tightenlines	<u> </u>
lengthcheck	<u> </u>

```
reprint
                         ___ ,, ___
eqsecnum
secnumarabic
                         ___ ,, ___
floats
stfloats
endfloats
endfloats*
osameet
opex
                         __ ,, __
tops
                         ___ ;; ___
josa
byrevtex
floatfix
                         __ ,, __
nofloatfix
                         ___ ;; ___
ltxgridinfo
                         ___ ;; ___
outputdebug
raggedfooter
                         ___ ;; ___
noraggedfooter
frontmatterverbose
linenumbers
nomerge
hypertext
                         ___ ;; ___
frontmatterverbose
                        ___ ;; ___
inactive
                         ___ ,, ___
groupedaddress
                         ___ ,, ___
                         ____ ;; ____
unsortedaddress
runinaddress
superscriptaddress
                         Triggers revtex compatibility mode
aps
pra
                         --- '' ---
prb
                         ____ ;; ____
                         ___ ;; ___
pre
                         __ ,, __
prl
                         ___ ;; ___
prx
                         ___ ;; ___
aip
```

#### 4 Contributing

In case you encounter problems using the article class please consider opening a bug report in our bug-tracker on GitHub. You can also contact us via email under latex@quantum-journal.org, but it may take significantly longer to get a response. In any case we need the full source of a document that produces the problem and the log file showing the error to help you.

Improvements submitted as pull requests against the development branch are very much appreciated!

## 5 Copyright

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