Geometric Algebra for Special and General Relativity

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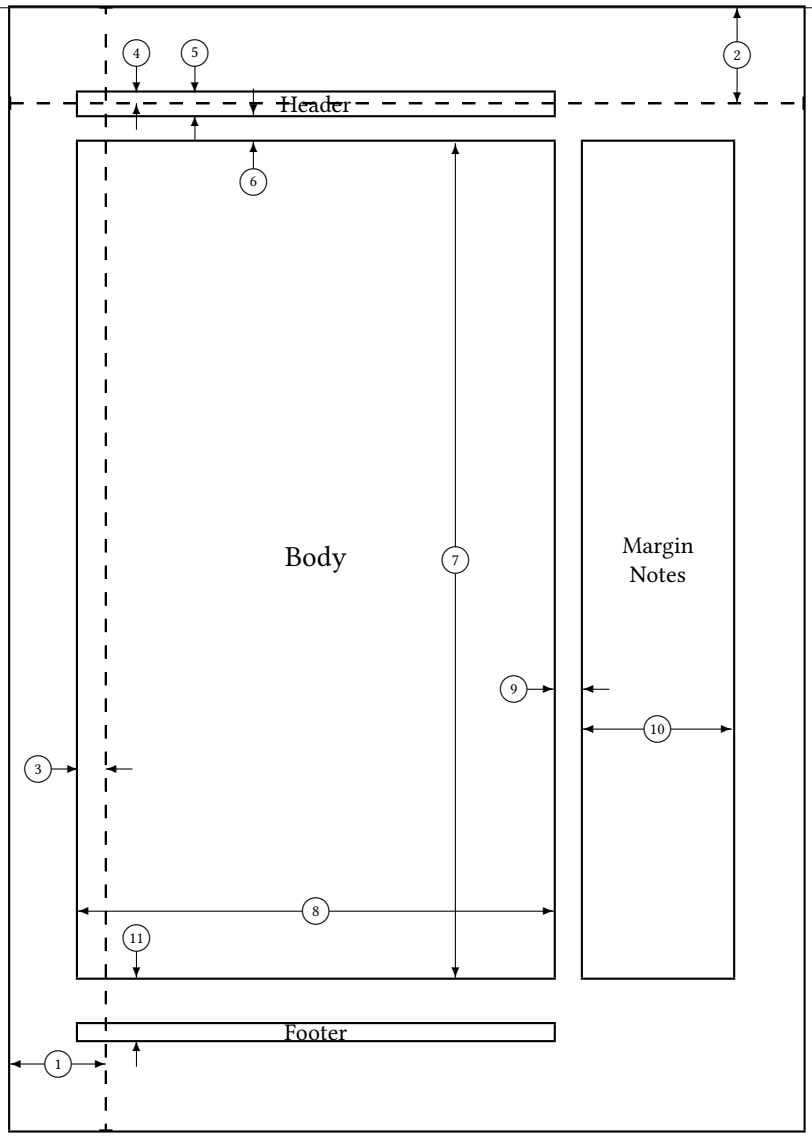
Contents



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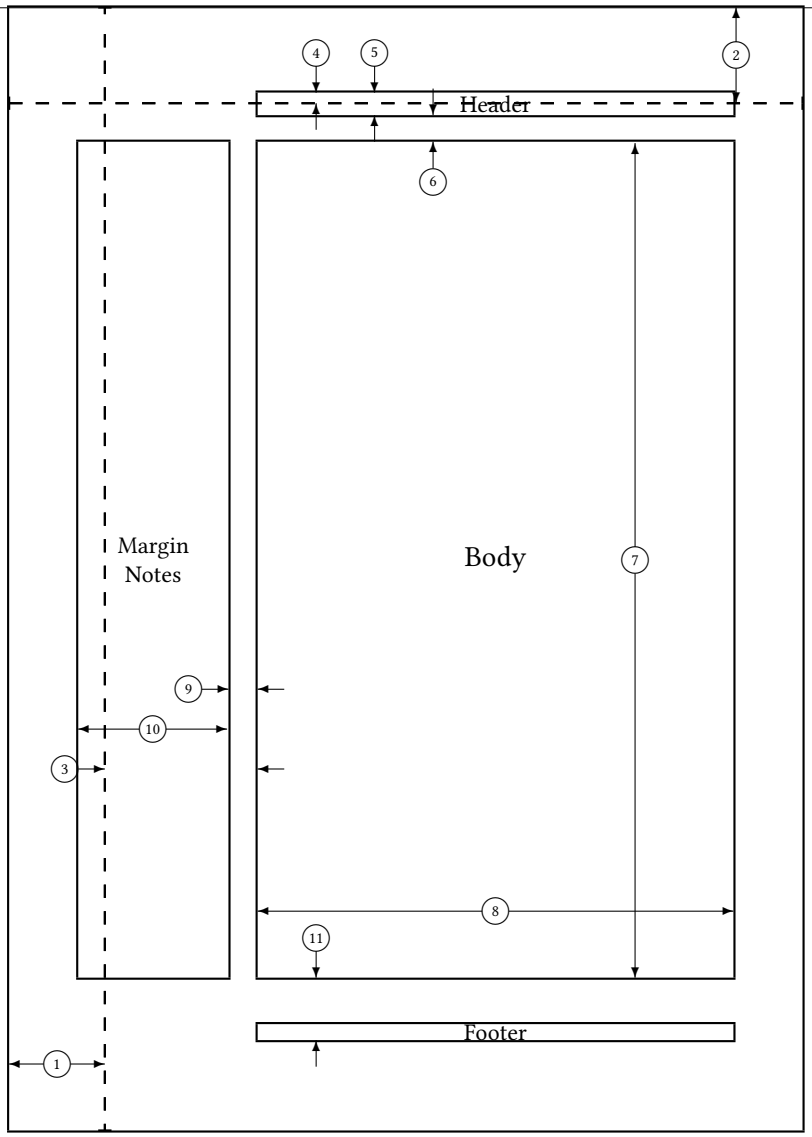
5	\headheight = 17pt	6	\headsep = 20pt
7	\textheight = 629pt	8	\textwidth = 358pt
9	\marginparsep = 22pt	10	\marginparwidth = 113pt
11	\footskip = 47pt		\marginparpush = 6pt (not shown)
	\hoffset = 0pt		\voffset = 0pt
	\paperwidth = 597pt		\paperheight = 845pt

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 3   \evensidemargin = 115pt      4   \topmargin = -8pt
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 9   \marginparsep = 22pt        10   \marginparwidth = 113pt
11   \footskip = 47pt                 \marginparpush = 6pt (not shown)
     \hoffset = 0pt                   \voffset = 0pt
     \paperwidth = 597pt              \paperheight = 845pt
```

Chapter 0

Proof of Document Features

0.1 Referencing

0.1.1 Automatic equation labels

Unlabelled, unreferenced:

$$a^2 = \pi$$

Labelled, unreferenced:

$$b^2 = \rho$$

Labelled, referenced:

$$c^2 = \sigma \tag{0.1}$$

See eq. (0.1).

0.1.2 Reference naming

Suppose

$$d^2 = \eta. \tag{0.2}$$

Equation (0.2) proves.

Theorem 1 (Diogenes). *Something.*

By theorem 1, something. Theorem 1 states something.

Definition 1. *Deduction.*

See definition 1. Definition 1 defines.

Lemma 1. *Little.*

A small result is lemma 1. Lemma 1 is nice.

0.2 Side margins

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas.[1] Nam dui ligula, fringilla a, euismod sodales,

[1] This is a sidenote.

sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus.[2] Nulla malesuada porttitor diam.[3] Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante.

0.3 Links and citations

This is a http://url.com. A like to think this will turn out OK [1]. All my inspiration is from [2–4].

0.4 Mathematical macros

Set builders:

$$\{\}, \{1\}, \left\{1, 9\frac{3}{4}\right\}, \{x^2 \mid x \in \mathbb{R}\}$$

Custom sizing:

$$\left\{1\right\}, \{\int\}$$

Misc.

$$\langle A + B \rangle_p, (\mathrm{T}^* \mathscr{M})^{\otimes}, \Lambda^k V, \mathcal{S}\,\mathbb{R}^n, \mathcal{G}_2(V, \eta)$$

[2] Quisque ullamcorper placerat ipsum. Cras nibh. Morbi vel justo vitae lacus tincidunt ultrices. Lorem ipsum dolor sit amet, consectetuer adipiscing elit.

[3] Does this fit?

Bibliography

[1] Misner, C., Thorne, K. and Wheeler, J. *Gravitation* (**1973**). ISBN 0716703440.

[2] Gallian, J. A. *Student Solutions Manual*. Textbooks in mathematics. Chapman and Hall/CRC (**Jun. 2021**). ISBN 9781003182306. doi:10.1201/9781003182306.

[3] Spivak, M. *A comprehensive introduction to differential geometry*, vol. 5. Publish or Perish, Incorporated (**1975**).

[4] Lee, J. M. *Introduction to smooth manifolds*. Grad. Texts Math. (**2012**). ISSN 0072-5285. doi:10.1007/978-1-4419-9982-5.