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0.1	26 August 2026	All	Initial version

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Abbreviations

Item	Meaning
HTML	Hypertext Markup Language

Applicable documents

[AD1] Frank Albert Cotton et al. *Advanced inorganic chemistry*. 6th ed. Chichester: Wiley, 1999.

Reference documents

[RD1] Sheldon Glashow. ‘Partial Symmetries of Weak Interactions’. In: *Nucl. Phys.* 22 (1961), pp. 579–588.

[RD2] Abdus Salam. ‘Weak and Electromagnetic Interactions’. In: *Elementary particle theory. Relativistic groups and analyticity*. Proceedings of the Eighth Nobel Symposium (Aspenäsgarden, Lerum, 19–25 May 1968). Ed. by Nils Svartholm. Stockholm: Almquist & Wiksell, 1968, pp. 367–377.

[RD3] Jan Wassenberg and Peter Sanders. *Faster Radix Sort via Virtual Memory and Write-Combining*. Issue 1. 17 Aug. 2010. arXiv: 1008.2849v1 [cs.DS].

1 Introduction

Alternative styles for the header, front page, math typeface and title typeface are provided by class options `largeheader`, `smallheader`, `compactheader`, `largefirstheader`, `largetitle`, `nosigs`, `mathastext` and `spacemono`. Comments at the start of the TEX file explain their meaning. The body text is in sans-serif typeface DejaVu Sans, an extended version of Vera Sans, which resembles Verdana. Headings are in monospace typeface DejaVu Sans Mono. Math mode uses serif typeface Utopia: $2 \times 3 + 7^2 - \sqrt{9} + 10/5 - 6 = 48$. Compare the characters to those in text mode: 2×3+7²−√9+10/5−6=48. Use math mode for functions and variables ($f(x)$, $\arcsin y$, $\boldsymbol{z}$, $\mathbf{A}$), constants (π) and expressions ($5x^2 + y^3$), but use text mode for numerical values and units ($5{\times}10^{24}$ μm^{-3}, 22°58'39", −76 °C) and descriptive terms, including chemical elements (H_2O) and subscript labels of quantity symbols (a_{sat}). In math mode, roman type as in $\max$ is produced with `\mathrm` and as in text mode with `\text`, bold italic type is produced with `\bm` and bold roman type with `\mathbf`. In text mode, commands for superscripts and subscripts are `\textsuperscript` and `\textsubscript`, symbols are − `\textminus`, × `\texttimes`, ± `\textpm`, ° `\textdegree`, ' `\textquotesingle`, " `\textquotedbl`, μ `\textmu`, Ω `\textohm`, ℃ `\textcelsius`, € `\texteuro`, but ×±°"μΩ€ can also be given as Unicode text.

Math mode uses the Latin letters in: *THE FIVE BOXING WIZARDS JUMP QUICKLY, pack my box with five dozen liquor jugs,* amazingly few discotheques provide jukeboxes. The Greek letters are $\Gamma\Delta\Theta\Lambda\Xi\ \Pi\Sigma\Upsilon\Phi\Psi\Omega$ $\alpha\beta\gamma\delta\varepsilon\zeta\ \eta\theta\iota\kappa\lambda\mu\ \nu\xi\pi\rho\sigma\tau\ \upsilon\varphi\chi\psi\omega$. Sum $2 \times 3 + 7^2 - \sqrt{9} + 10/5 - 6 = 48$ leaves out $\{[(|a \cdot b| + \lceil x_2 \rceil - \lfloor y \rfloor \pm 5\frac{1}{2})]\}$. The cross product [RD1] of two vectors is defined by

$$\boldsymbol{\alpha} \times \boldsymbol{\beta} = \alpha\beta \sin\theta\, \hat{\boldsymbol{n}}, \tag{1.1}$$

the convolution of a Gaussian and a Lorentz distribution [RD2, RD3] is given by

$$\mathcal{F}(x, y) = \int_{-\infty}^{\infty} \frac{y \mathrm{e}^{-t^2}}{(x-t)^2 + y^2}\, \mathrm{d}t = \pi \Re[w(x + i\,y)], \quad w(z) = \mathrm{e}^{-z^2} \operatorname{erfc}(-i\,z), \quad x \in \mathbb{R}, y > 0, \tag{1.2}$$

with Moore-Penrose pseudoinverse [AD1]

$$\mathbf{K}^{+} = (\mathbf{K}^{\mathrm{T}}\mathbf{K})^{-1}\mathbf{K}^{\mathrm{T}} \tag{1.3}$$

calculated for example with PYTHON function `numpy.linalg.pinv`.