



guidelines full paper

The following aims to provide guidelines for authors on how to compose their manuscript with regards to conventions of English.

Variety of English: We accept all standard varieties of English in order to retain the author's voice. However, the variety should be consistent within each article. When using Oxford spellings, please do so consistently. For example, if "characterize" is spelled as such, then the -z- variant should be used for all such words throughout the article. The use (or lack thereof) of the Oxford (serial) comma should also be consistent. Authors will be prompted to select an English variety when they upload the final revised version of the manuscript. The copy editor will then ensure that the variety is consistent.

Spelling: We recommend consulting one of the following dictionaries: Oxford, Cambridge, Merriam-Webster, or Collins. Where appropriate, use the anglicized version of place names (e.g. Zurich, Rome, Munich). Names that have been transliterated into English often have numerous spelling variants. For geographical locations, we consult *The Times Atlas of the World* for the most commonly used spelling. Please ensure that foreign names have the appropriate diacritics (e.g. accents, umlauts). In accordance with IUPAC, it is our house standard to use the -f- spelling for sulfur (instead of sulphur) and related words for all varieties of English.

Abbreviations

- They need to be defined in the abstract and then again at the first instance in the rest of the text. In order to avoid ambiguity, abbreviations that could have numerous meanings must be defined (e.g. "GCM" could stand for "global climate model" or "general circulation model"). This generally does not apply to abbreviations that are better known than their written-out form (e.g. NASA, GPS, GIS, MODIS).
- Abbreviations should be avoided in the title, depending on the length and familiarity of abbreviation.
- Units do not need to be defined.
- Please note that most abbreviations in the plural are followed by the suffix -s (e.g. GCMs, RMSEs), although there are some exceptions (e.g. CCN, ECMWF).
- Ma and My (also Ga, ka; Gy, ky): "Ma" stands for "mega-annum" and literally means millions of years ago, thus referring to a specific time/date in the past as measured from now. "Mya"

likewise means (and stands for) millions of years ago. In contrast, "My" (and "Myr" as an equivalent alternative) stands for millions of years and is used in reference to duration (CSE, p. 398; North American commission on stratigraphic nomenclature).

Capitalization

- Proper nouns should be capitalized. A proper noun refers to a unique entity. If there is more than one of the item in question, it is probably not a proper noun and should not be capitalized. A capitalized abbreviation does not necessarily warrant the capitalization of the written-out form. For example "LAI" is capitalized, but "leaf area index" is not. Non-standard usage of capitalization is only acceptable for proper nouns (e.g. "SCanning Imaging
- Titles and headings follow sentence-style capitalization (i.e. first word and proper nouns only). Absorption spectroMeter for Atmospheric CHartographY" as the written-out form of "SCIAMACHY").
- The capitalization of the term "earth" is disputed and based on subjective criteria. Please simply ensure that the capitalization (or lack thereof) is consistent.
- Cardinal directions should only be capitalized when part of a proper noun (e.g. South Dakota, Northern Ireland, North America, but eastern France). If you are unsure, consult an atlas.
- Capitalize generic geographic terms, such as "river", when they are part of a place name, but do not capitalize the generic term when it appears on its own, when it follows a capitalized generic term, or when it is in the plural (e.g. Mississippi River, Mississippi River basin, Mississippi and Missouri rivers).
- Capitalize taxonomic ranks genus and higher.
- "Early", "middle", and "late" are capitalized only when part of the formal name but lower-cased when used as modifiers of formal names (e.g. Early Jurassic, early Miocene, late Holocene). This applies to "upper", "middle", and "lower" as well. For more information, we recommend consulting the [International Commission on Stratigraphy](#) and [Geological Society of America](#).

Italicization

- Italic font may be used for emphasis, although this should be used sparingly (e.g. data were *almost* consistent).
- Foreign words, phrases, and abbreviations that cannot be found in any English dictionary (this does not apply to proper nouns) are italicized. Common Latin phrases are not italicized (for example, et al., cf., e.g., a priori, in situ, bremsstrahlung, and eigenvalue).
- Ship names are italic, but their prefixes are roman (e.g. RV *Polarstern*).
- Genus and species names are italic; high-order taxonomic ranks are roman.
- When mentioned in running text, the names of books, journals, pamphlets, magazines, and newspapers are italicized.

Numbers

- For items other than units of time or measure, use words for cardinal numbers less than 10; use numerals for 10 and above (e.g. three flasks, seven trees, 6m, 9 days, 10 desks).
- Spell out ordinals "first" to "ninth".
- Use numerals with units and expressions when used in a scientific or mathematical sense (e.g. increased 2-fold, 1 standard deviation, 3 orders of magnitude, 2 times the height (but the beaker was rinsed two times), a factor of 3).
- Spell out numbers when they begin a sentence or when the sentence cannot be reformulated.
- For very large numbers, use a combination of numerals and words (e.g. 1 billion people).
- Use all numerals in a series or range containing numbers 10 or greater (e.g. 5, 7, and 13 experiments) or in a parallel construction.
- Use words for instances such as "tens of millennia" and "non-zero".
- Spell out and hyphenate fractions in which the numerator and denominator are both less than 10 (e.g. two-thirds).

Hyphens

- Do not use hyphens between an adverb ending in -ly and the word it is modifying (e.g. "statistically based results", not "statistically-based results").
- Latin phrases should not be hyphenated (e.g. "in situ", not "in-situ").
- It is our house standard not to hyphenate modifiers containing abbreviated units (e.g. "3-m stick" should be "3m stick"). This also applies to the other side of the hyphenated term (e.g. "3m long rope", not "3-m-long rope").

En dashes (–) are longer than hyphens (-) and serve numerous purposes. Please note that we use spaced en dashes for syntactic constructions, not em dashes (—). En dashes are used to indicate, among other things, relationships (e.g. ocean–atmosphere exchange), ranges (e.g. 12–20 months), and components of a mixture (e.g. dissolved in 5:1 glycerin–water). They are also used to link the names of two or more persons used as a modifier (e.g. Stefan–Boltzmann constant).

Quotes

- Use double quotation marks in all instances, unless quotation marks are also required within material surrounded by double quotation marks.
- In these intra-quotation-mark instances, single quotation marks are used. Please note that quoted material should be punctuated with quotation marks but not italicized.
- In quotations from printed sources, the spelling, capitalization, and punctuation should normally follow the original.

- Quotations can also be used to denote an unfamiliar or newly coined term or phrase. They may also be used to introduce a term but only once at the first instance.
- It is our house standard to position commas and periods outside the end quotation marks.
- The following titles should be surrounded by quotation marks in running text: journal articles, book chapters, and series titles (special issues).

Author's response

The author's response should be structured in a clear and easy-to-follow sequence: **(1) comments from referees/public, (2) author's response, and (3) author's changes in manuscript.**