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For review essays, state the primary objective of the review; the reasoning behind your literature selection; and the way you critically analyse the literature; state the main outcomes and results of your review; and state the conclusions that might be drawn, including their implications for further research or application/practice.

Abstracts should not exceed 200 words.

4. Mathematics

Special care should be taken with mathematics in manuscripts, especially subscripts and superscripts and differentiation between the letter 'ell' and the figure one, and the letter 'oh' and the figure zero.

In the unlikely event your keyboard does not have the characters you need, it is preferable to use longhand, in which case it is important to differentiate between capital and small letters, K, k and x and other similar groups of letters. Special symbols should be highlighted in the text and explained in the margin. In some cases it is helpful to supply annotated lists of symbols for the guidance of the sub-editor and the typesetter, and/or a 'Nomenclature' following the abstract.

For simple fractions in the text, the solidus / should be used instead of a horizontal line, care being taken to insert parentheses where necessary to avoid ambiguity, for example, $1/(n-1)$. Exceptions are the proper fractions available as single type on a keyboard.

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Displayed equations referred to in the text should be numbered serially on the right hand side of the page. Short expressions not referred to by any number will usually be incorporated in the text, but are discouraged.

$$\Sigma = m^2 - \beta \rightarrow \alpha \quad (2)$$

In-text references should be in the form '... as shown in equation (2) ...'

Symbols should not be underlined to indicate fonts except for tensors, vectors and matrices, which are indicated with a wavy line in the manuscript (not with a straight arrow or arrow above) and rendered in heavy type in print: upright sans serif \mathbf{r} (tensor), sloping serif \mathbf{r} (vector) upright serif \mathbf{r} (matrix).

Typographical requirements must be clearly indicated at their first occurrence, e.g. Greek, Roman, script, sans serif, bold, italic. Authors will be charged for corrections at proof stage resulting from a failure to do so.

Braces, brackets and parentheses are used in the order $\{[()]\}$, except where mathematical convention dictates otherwise (i.e. square brackets for commutators and anticommutators)

5. Units

Authors must adhere to *Système Internationale* (SI) units. Please note the following style conventions.

2° C

34° 17' S

360 N

decibel

dB

differences in temp

deg K

hectares

ha

hertz

Hz

hour

h

kelvin

K

kilogramme

kg

kilometre

km [note lower case k]

litre

l

metre

m

Minute

min

radian

rad

Second

s

steradian

sr

watt

W

6. Glossary of terms

A - D

a priori [note use of italics]
analysis of variance (ANOVA)
ca
cf.
confirm [preferable to verify]
cross-section [note hyphenation]
'data' [use in plural form]
datasets, databases [one word]
daytime, night-time [note use of hyphenation]
digital number (DN) [note both singular and plural]

E - H

e.g. [note use of full stops]
estimate [usually preferable to 'retrieve' or 'measure']

I - L

i.e. [note use of full stops]
identify [preferable to extract]
in situ [note use of italics]
in vitro [note use of italics]
in vivo [note use of italics]
Lambertian [note upper case L]
large area [note not large scale which is a small area]
least-squares techniques [note hyphenation]
long-term [note hyphenation when adjectival, i.e., long-term process]

M - P

maximum likelihood classification
mid-latitude [note hyphenation]
 $n = 244$ [note italic]
night-time [note hyphenation]
nonlinear [no hyphenation]
north, south, east, west, north-eastern
north-west [note no capitalisation]
parameter [a constant]
parametrize, parametrization [note U.S spelling]
principal component analysis (PCA)
 p - probability [note italic]

Q - T

R^2 - coefficient of determination
researcher - not 'scientist' or 'worker'
rms. - root mean square - [use in the abbreviated form; do not spell out]
SD - significant difference
small area [note not small scale which is a large area]
t-test [note italics]

U - Z

variable [something that varies, not a parameter]

7. Notes on style

Some specific points of style for the text of articles and Perspectives follow:

1. We prefer US to 'American', USA to 'United States', and UK to 'United Kingdom'.
2. We use conservative British, not US, spelling, i.e. colour not color; behaviour (behavioural) not behavior; [school] programme not program; [he] practises not practices; centre not center; organization not organisation; analyse not analyze, etc.
3. Single 'quotes' are used for quotations rather than double "quotes", unless the 'quote is "within" another quote'.
4. Punctuation should follow the British style, e.g. 'quotes precede punctuation'.
5. Punctuation of common abbreviations should follow the following conventions: e.g. i.e. cf. Note that such abbreviations are not followed by a comma or a (double) point/period.
6. Dashes (M-dash) should be clearly indicated in manuscripts by way of either a clear dash (-) or a double hyphen (- -).
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9. All acronyms for national agencies, examinations, etc., should be spelled out the first time they are introduced in text or references. Thereafter the acronym can be used if appropriate, e.g. 'The work of the Assessment of Performance Unit (APU) in the early 1980s ...'. Subsequently, 'The APU studies of achievement ...', in a reference ... (Department of Education and Science [DES] 1989a).
10. Brief biographical details of significant national figures should be outlined in the text unless it is quite clear that the person concerned would be known internationally. Some suggested editorial emendations to a 'typical' text are indicated in the following with square brackets: 'From the time of H. E. Armstrong [in the 19th century] to the curriculum development work associated

with the Nuffield Foundation [in the 1960s], there has been a shift from heurism to constructivism in the design of [British] science courses'.

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References should be cited using the numerical system (e.g. [3], [5-9]). They should be listed separately at the end of the paper in the order in which they appear in the text. 'Ibid.' (and the like) are not used when repeating citations.

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11. References

Advances in Physics uses the following conventions for references:

11.1. Reference to a book:

[172] WOOTEN, F., 1972, *Optical Properties of Solids* (New York: Academic Press)

11.2. Reference to a chapter in a book:

[168] BOMMELI, F., DEGIORGI, L., WACHTER, P., and FORRO, L., 1996, *Synth. Metals*, 77, 111

11.3. Reference to an article in a journal:

[178] DRESSEL, M., DEGIORGI, L., SCHWARTZ, A., ALAVI, B., and GRUNER, G., 1996, *Phys. Rev. Lett.*, 77, 398

11.4. Proceedings, technical reports and unpublished literature

[186] KINGSBURY, F. B., 1923, The synthesis and excretion of hippuric acid: the glycine factor. *Proceedings of the Society of Experimental Biology and Medicine*, 20, 405-408.

[191] OGAWA, T., NAKASHIMA, Y., NAKASATO, A., KUMAZAWA, Y., KAWASE, M., TSUCHIDA, K., and SOTA, K., 1987, Synthesis and antihypertensive effect of the metabolites of 2,6-dimethyl 4-(3-nitrophenyl)-1,4-dihydropyridine-3,5-dicarboxylic acid 3-(2-nitroxypropyl) ester 5-(3-nitroxypropyl) ester (CD-349). Presented at the Japanese-United States Congress of Pharmaceutical Sciences. 2-7 December, Honolulu, Hawaii.

[158] COXON, A. P. .M., 1986, Homosexual sexual behaviour, Project SIGMA Working Paper No. 9, Social Research Unit, University College Cardiff.

11.5. Reference to a newspaper or magazine

[128] RICHARDS, H., 1996, Republican lite? *The Times Higher Education Supplement*, 1 November, 16.

11.6. Reference to an Internet source

Give the universal resource locator in full:

<http://www.physicsarena.com>

11.7. Reference to a personal communication

[164] BRANNEN, J., 1996, Personal communication.

11.8. Reference to a case in law

In text, italicize names of plaintiffs and defendants:

Miranda v. Arizona 1974

11.9. Reference to government legislation

[164] US Congress, Senate Committee on Foreign Relations, 1956, *The Mutual Security Act of 1956*, 84th Congress, second session, report 2273.

[164] US Congress, House Committee on Banking & Currency, 1945, *Bretton Woods Agreements Act: Hearings on HR 3314*, 79th Congress, first session, report 452.

[164] United Kingdom Parliament, Committee on the Working of the Monetary System [Radcliffe Committee] 1960, *Principal Memoranda of Evidence*, vol. 2, Cmd 1958.

[164] United Nations General Assembly, Secretariat for Economic Affairs, 1951, *Methods of Financing Economic Development in Less Developed Countries*, report II B 2.

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- a guide for authors using standard word-processing software packages
- a guide for authors using LaTeX mathematical software packages
- a guide for authors using graphics software packages

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5. The figure captions must be saved as a separate file with the text and numbered correspondingly.
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Figures 1-10
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