# Some important features of the proposed new definition of the International System of Units (SI): realization and hierarchical problems that the users should know about



| | |
|---|---|
| Titre | Some important features of the proposed new definition of the International System of Units (SI): realization and hierarchical problems that the users should know about |
| Type de publication | Article de revue |
| Auteur | Pavese, Franco [1], Charki, Abderafi [2] |
| Editeur | EDP Sciences |
| Type | Article scientifique dans une revue à comité de lecture |
| Année | 2016 |
| Langue | Anglais |
| Date | 2016 |
| Numéro | 4 |
| Volume | 7 |
| Section | 403 |
| Titre de la revue | International Journal of Metrology and Quality Engineering |
| ISSN | 2107-6839 |
| Mots-clés | fundamental constants [3], hierarchy between countries [4], magnitude continuity [5], measurement units [6], New SI [7], standards [8], standards conformity [9] |
| Résumé en anglais | The paper, after a short introduction to measurement units in general and to the present international system of units (SI: Système International des Unités), deals with a digest of the basics of the proposed new SI:2018 and of its differences compared with the present SI. The latter issue also involves a review of some problems still unresolved in the last draft, concerning: the role of the constants of physics in the system and their role in the conceptual construction of this international standard; the method employed for using the relevant experimental data, and related statistical issues; finally, the implications for science of the New SI implementation. The consequences for and new duties of the national metrology institutes and practitioners are illustrated, involving the future conformity of the present standards and a possible hierarchy between countries that would result from the new definition, in contrast with certain principles of the Convention du Mètre. |
| URL de la notice | http://okina.univ-angers.fr/publications/ua16439 [10] |
| DOI | 10.1051/ijmqe/2016023 [11] |
| Lien vers le document | https://www.metrology-journal.org/articles/ijmqe/abs/2016/04/ijmqe160047... [12] |

**Liens**

[1] http://okina.univ-angers.fr/publications?f%5Bauthor%5D=27527

[2] http://okina.univ-angers.fr/abderafi.charki/publications
[3] http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=23801
[4] http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=23804
[5] http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=23802
[6] http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=23799
[7] http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=23800
[8] http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=15858
[9] http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=23803
[10] http://okina.univ-angers.fr/publications/ua16439
[11] http://dx.doi.org/10.1051/ijmqe/2016023
[12] https://www.metrology-journal.org/articles/ijmqe/abs/2016/04/ijmqe160047/ijmqe160047.html