

Call for papers  
International Conference

**Standards at Work.**  
**Institutional and Epistemological Issues of Standardization in Science**

*Universidad Autónoma de Madrid*  
*Madrid - December 11-13, 2017*

Standards have played a major role in the history and development of science, in such a way that an important dimension of the history of science can be reconstructed at both epistemological and institutional levels through the study of the formulation and refinement of standards. The careful and systematic definition of standards is a neat indicator of the robustness of scientific fields and disciplines. By following the paths of their successive definitions one can even tell the history of essential epistemic values and virtues, such as precision or simplicity. Standards are used to refine concepts and to build new experimental practices that in turn foster the development of more robust standards in a virtuous circle.

Standards in the physical sciences such as the units of measurement help to inspire the elaboration of standards in close disciplines. They were used as a paradigm to define standards in the biomedical and the social sciences. Even mathematics creates its own notion of standard in relation to disputes about the elegance and the naturalness in the organization of knowledge. More experimental disciplines used standards to build epistemic bridges between the laboratory and the industries. Societies could then regard the advantages of standardization as the spread of the scientific efficacy to the social organization. In the last two centuries, people concerned with the organization of knowledge didn't seem to consider that it could be done without counting with institutional frameworks devoted to manage the standardization processes.

Despite the centrality of standards in shaping our knowledge practices, the epistemological and institutional issues of the processes of formulating and refining standards have not attracted much attention. Part of the literature of science studies has considered standards as tools to homogenize, to bureaucratically manage knowledge and societies, and to create "objectivity

conditions”, but the specific epistemic virtues of standards have not deserved equal interest and treatment. How do standards and the institutions devoted to their formulation contribute to the production of knowledge? Are they mere convenient tools? Do they shape a form of scientific objectivity? What is the epistemological contribution of standards in science?

This conference calls for papers that study the role of standards and standardization processes in accounting for the success of science. It is interested both in the epistemological and in the institutional dimensions of the formulation and enforcement of standards. Proposals on the following issues are welcome:

1. Metrology and Standards in Science
2. Institutions for Standardization
3. Standards in Scientific Research
4. Science, Empire, and Standards
5. The Epistemic Virtues of Standards

The proposals should include an abstract of at least 1000 words ready for blind refereeing. They should be sent to the following email address: [standardsatwork2017@gmail.com](mailto:standardsatwork2017@gmail.com) before October 1<sup>st</sup>. Notification of acceptance will be sent by October 15<sup>th</sup>.

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