

Editorial

Instrumentation Interdisciplinary Colloque, “C2I 2001”, hosted by “Conservatoire National des Arts et Métiers”, Paris, January 31–February 1, 2001

The first “Colloque Interdisciplinaire en Instrumentation” (C2I) was organised in 1998 by *École Normale Supérieure de Cachan* to allow exchanges of methods and ideas between different scientific or industrial fields of instrumentation. The second issue of this conference was hosted by *Conservatoire National des Arts et Métiers* (CNAM) in Paris in 2001. In addition to the previous objectives, the participants were asked to emphasize the metrology dimension of their instrumental realizations. There were at least two reasons to introduce metrology in the presentations of the contributed papers:

- CNAM is the birth place of metrology in France and one of its laboratories maintains and develops the French standards of mass, temperature, length and radiometry;
- the standardization of measurements is today a rule for instrumentation and, by this way, metrology is a federative theme for interdisciplinarity;
- the meeting “C2I 2001” was sponsored by the *Bureau National de Métrologie*, which defines and coordinates the work of the national metrology laboratories in France. This impact of metrology on the C2I was also evidenced by the active participation of about twenty members of this scientific community.

The C2I 2001 was organised in four parallel sessions during two days, allowing presentations of about 120 papers. All the main subjects in progress in instrumentation were treated from fundamental science to biological, environmental and medical applications. The contributions were almost equally distributed between academic research and industrial or technological applications.

At the end of the conference, the scientific committee selected about ten papers to illustrate the main subjects discussed during the two days and asked their authors to submit a more detailed redaction of their work to the “European Physical Journal: Applied Physics”. This issue contains about half of these contributions (see pages 135 to 164) chosen for the originality and the performances of the instrumentation presented.

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