
Preface: 'Are you sure'?

**Guest Editors: Marcelo Enrique Conti and
Francesco Botrè**

This is perhaps the most common question a scientist is asked to answer. Many critical decisional processes, including those in the field of environmental and health problems, are based on the scientific study of the system and on the relevant experimental data. This is particularly true in the case of environmental and human health protection. The medical diagnosis of a critical case, the determination of the environmental impact of a new production cycle, the evaluation of the compliance with laws, rules and guidelines are only some of the many fields in which the 'measurement' and its results, supplies the evidence and triggers the subsequent decisional processes.

Our idea was to collect, in a single volume, some examples of the role of measurement uncertainty in the fields of the protection of the environment and human health. Professor Mohammed Dorgham, the Editor-in-Chief of this relatively young Journal, was generous enough to share our point of view, giving us the freedom to organise an entire volume in this year and the energy to finalise it in a relatively short time.

Since September 2003, we have contacted many authoritative scientists involved, at different levels, in the study of problems relevant to measurement uncertainty and we have been lucky enough to receive enthusiastic feedback from most of them, thus collecting a significant number of top quality scientific papers, that cover a good selection of the most critical issues in environmental and health problems. The content of all the articles, ranging from the evaluation of the precautionary principle effects to uncertainty models; from the uncertainty assessment for risk management to uncertainty appraisal in environmental analyses, perfectly matched our original aim. Only in a very few cases, the topics slightly exceeded the borders we had originally fixed; but nonetheless we considered this as an added value of the volume, showing once again that a rigid forecast may be very risky in science and flexibility often becomes a winning strategy.

The book may look like a collection of proceedings of a scientific conference and, although there was, of course, no conference, we still hope that this volume may promote interaction among all the authors: the two guest editors of this book are also long-standing and their friendship arose, over 15 years ago, on the occasion of the publication of two independent research articles in a volume of this kind. It is our hope that, apart from the value of its scientific content, this book may serve as a 'meeting point' to start up a new, unexpected form of cooperation among its authors.