

# **GUIDE 98-1**

Uncertainty of measurement —
Part 1:
Introduction to the expression of uncertainty in measurement

First edition 2009

#### PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



## **COPYRIGHT PROTECTED DOCUMENT**

### © ISO/IEC 2009

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office Case postale 56 • CH-1211 Geneva 20 Tel. + 41 22 749 01 11 Fax + 41 22 749 09 47 E-mail copyright@iso.org Web www.iso.org

Published in Switzerland

## ISO/IEC Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

Draft Guides adopted by the responsible Committee or Group are circulated to the member bodies for voting. Publication as a Guide requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO/IEC Guide 98-1 was prepared by Working Group 1 of the Joint Committee for Guides in Metrology (as JCGM 104:2009), and was adopted by the national bodies of ISO and IEC.

ISO/IEC Guide 98 consists of the following parts, under the general title *Uncertainty of measurement*:

- Part 1: Introduction to the expression of uncertainty in measurement
- Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)

The following parts are planned:

- Part 2: Concepts and basic principles
- Part 4: Role of measurement uncertainty in conformity assessment
- Part 5: Applications of the least-squares method

ISO/IEC Guide 98-3 has one supplement.

Supplement 1: Propagation of distributions using a Monte Carlo method

The following supplements to ISO/IEC Guide 98-3 are planned:

- Supplement 2: Models with any number of output quantities
- Supplement 3: Modelling

Given that ISO/IEC Guide 98-1:2009 is identical in content to JCGM 104:2009, the decimal symbol is a point on the line in the English version.

Annex ZZ has been appended to provide a list of corresponding ISO/IEC Guides and JCGM guidance documents for which equivalents are not given in the text.