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## **Investigations in Software Measurement**

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on Software Measurement

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## Preface

Software process evaluation and improvement require quantified methods and technologies. Issues such as the applicability of measures and metrics to software, the efficiency of measurement programs in industry and the theoretical foundations of software engineering have been researched in order to evaluate and improve modern software development approaches.

In the tradition of our software measurement research communities,

- the Common Software Measurement International Consortium (COSMIC),
- the Canadian Interest Group in Software Metrics (CIM),
- the German Computer Science Interest Group on Software Measurement (GI),
- the Metrics Association's International Network (MAIN),
- the Deutschsprachige Anwendergruppe für Software-Metrik und Aufwandschätzung (DASMA),

have all address these concerns. Initially, research initiatives were directed towards the definition of new software measurement methods and the validation of these methods themselves. Key findings in the area of software engineering have already been published in:

- Dumke/Zuse: *Theory and Practice of Software Measurement*, 1994
- Ebert/Dumke: *Software-Metriken in der Praxis*, 1996
- Lehner/Dumke/Abran: *Software Metrics – Research and Practice in Software Measurement*, 1997
- Dumke/Abran: *Software Measurement – Current Trends in Research and Practice*, 1999
- Dumke/Abran: *New Approaches in Software Measurement*, 2000
- Dumke/Abran: *Current Trends in Software Measurement*, 2001
- Dumke/Rombach: *Software-Messung und Bewertung*, 2002
- Dumke/Bundschuh: *Software-Metriken in der Praxis – Metrikon 2001*, 2002
- Dumke/Abran/Bundschuh/Symons: *Software Measurement and Estimation*, 2002

Our new book includes the proceedings of the 13<sup>th</sup> International Workshop on Software Measurement (IWSM2003) held in Montreal in September 2003, which constitutes a collection of theoretical studies in the field of software measurement and case reports on the application of software metrics in companies and universities in Belgium, Canada, Germany, India, Italy, Japan, Netherlands, UK, USA and Vietnam.

The book will be of interest to software engineering researchers, as well as to practitioners, in the areas of project management and quality improvement programs, for both software maintenance and software development.

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