Dipartimento di Scienze Teoriche e Applicate
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ESTAMOS
Empirical STudies And Measurement Of Software

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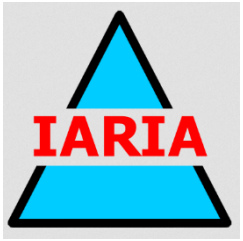

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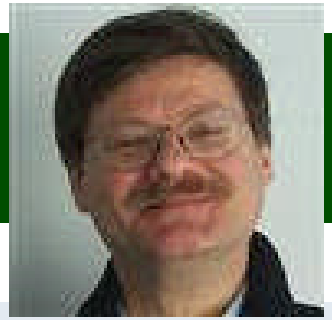

- Luigi Lavazza is associate professor of Computer Science at the University of Insubria at Varese, Italy. Formerly he was assistant professor at Politecnico di Milano, Italy. Since 1990 he cooperates with the Software Engineering group at CEFRIEL, where he acts as a scientific consultant in digital innovation projects.
- His research interests include: Empirical software engineering, software metrics and software quality evaluation; Software project management and effort estimation; Software process modeling, measurement and improvement; Open Source Software.
- He was involved in several international research projects, and he also served as reviewer of EU funded projects.
- He is co-author of over 170 scientific articles, published in international journals, or in the proceedings of international conferences or in books.
- He has served on the PC of a number of international Software Engineering conferences; from 2013 to 2018 he was the editor in chief of the IARIA International Journal On Advances in Software.
- He is a IARIA fellow since 2011

Luigi Lavazza: research interests

- Empirical software engineering
  - Evaluation of estimation models' accuracy
- Software metrics and software quality evaluation
- Software project management and effort estimation
- Software process modeling, measurement and improvement
- Open Source Software.

Introduction

- Empirical studies and measures are fundamental to
  - Understand and improve the software product
  - Understand and improve software development and maintenance processes
  - Adapt well established practices to evolving technologies and processes
- The ESTAMOS special track is dedicated to
  - Studies of the effectiveness of software engineering activities and instruments
  - Proposals for improving or adapting measurement practices
  - Improved measures
  - …

Presentations

- We have 4 presentations
  - 3 concerning hot topics in functional size measurement
  - 1 concerning the evaluation of a new code measure

Functional size measurement

- Proposed in the late 70's, functional size measurement of software is still
  - Widely used
    - Because it is essential to drive development cost estimation in the early stages of development
  - Widely researched
    - New ways of organizing software emerge, which require to adapt the measurement procedures
    - New ways of organizing the development process are proposed, which require to adapt the measurement procedures
    - New technologies support measurement in unprecedented ways, which can possibly allow for quicker and cheaper measurement

Presentations on Functional size measurement

- New ways of organizing software emerge, which require to adapt the measurement procedures
  - T. Fehlmann & E. Kranich: Functional Size Measurement in Agile
- New ways of organizing the development process are proposed, which require to adapt the measurement procedures
  - R. Pedraza-Coello & F. Valdés-Souto: Measuring Coupling in Microservices using COSMIC Measurement Method
- New technologies support measurement in unprecedented ways, which can possibly allow for quicker and cheaper measurement
  - B. Gérançon, S. Trudel, R. Nkambou & S. Robert: Software Functional Size Automation from Requirements Written as Triplet Structure

Evaluation of new measures

- Defining new code measures is easy, but do these new measures provide new knowledge, with respect to well-known and well-established measures?
  - Luigi: Lavazza: An Empirical Study of the Correlation of Cognitive Complexity-related Code Measures

Thanks for your attention!

Questions?