

Preface

With the raise of quantum computers, first quantum algorithms came up with promising results, and Quantum Computing is becoming more and more a mature area while an investment scalation is happening in this field.

In the next years, companies will progressively need to add quantum computing to some (or all) of their daily operations. It is clear that both the research and the practitioner communities must give an answer to deal with this new challenge. Thus, Software Engineering and Programming practices need to be brought into the domain of Quantum Computing. To achieve this, QANSWER (1st International Workshop on the QuANtum SoftWare Engineering & pRogramming) attempts to identify new or existing Software Engineering and Programming methods, techniques and practices that are applicable to Quantum Computing.

QANSWER is promoted by aQuantum, a research unit that groups Alarcos Research group at University of Castilla-La Mancha (UCLM) and Alhambra-Eidos company. QANSWER has been locally organized by the Faculty of Social Sciences & Information Technology at UCLM in Talavera de la Reina, February 11-12, 2020. This workshop has been sponsored by the Department of Information Technology and Systems and by the Information Technology & Systems Institute (ITSI), both at UCLM. In addition, Talavera de la Reina City Hall and Microsoft Spain supported this workshop as collaborators.

The first edition of QANSWER had 11 speakers plus a round table with experts for discussing problems in the development of quantum information systems and needs for good practices in design, analysis, quality assurance, testing, design patterns, etc., for quantum software. Thus, QANSWER proceedings consists of eight papers plus the Talavera Manifesto, in which researchers and practitioners in QANSWER collect main commitments for Quantum Software Engineering and make some calls for action.

February 2020

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