CALL FOR PAPERS – PQMI 2022

The Seventh International Workshop on Process Querying, Manipulation, and Intelligence

Bolzano, Italy, October 24, 2022

(www.processquerying.com/pqmi2022/)

The Seventh International Workshop on Process Querying, Manipulation, and Intelligence (PQMI 2022) aims to provide a high-quality forum for researchers and practitioners to exchange research findings and ideas on methods and practices in the corresponding areas. **Process Querying** combines concepts from Big Data and Process Modeling and Analysis with Business Process Intelligence and Process Analytics to study techniques for retrieving and manipulating models of processes, both observed and recorded in the real-world and envisioned and designed in conceptual models, to systematically organize and extract process-related information for subsequent use. **Process Manipulation** studies inferences from real-world observations for augmenting, enhancing, and redesigning models of processes with the ultimate goal of improving real-world business processes. **Process Intelligence** looks into the application of representation models and approaches in Artificial Intelligence (AI), such as knowledge representation, search, automated planning, reasoning, natural language processing, explainable AI, autonomous agents, and multi-agent systems, among others, for solving problems in process mining, that is automated process discovery, conformance checking, and process enhancement, and vice versa using process mining techniques to tackle problems in AI. Techniques, methods, and tools for process querying, manipulation, and intelligence have applications in Business Process Management and Process Mining. Examples of practical problems tackled by the themes of the workshop include business process compliance management, business process weakness detection, process variance management, process performance analysis, predictive process monitoring, process model translation, syntactical correctness checking, process model comparison, infrequent behavior detection, process instance migration, process reuse, and process standardization.

PQMI 2022 will be held in conjunction with the 4th International Conference on Process Mining (ICPM 2022).

WORKSHOP TOPICS

The main topics relevant to the PQMI workshop include, but are not limited to:

- Case studies in process querying, manipulation, and intelligence
- Empirical evaluations of process querying, manipulation, and intelligence techniques

Process Querying:

- Domain-specific programming languages for process querying, including syntax, semantics, and notation
- Process mining methods for implementing process querying tasks, e.g., retrieval of process-related information
- Process querying methods for supporting process mining tasks, e.g., filtering and manipulating event logs
- Behavioral and structural methods for process querying
- Natural language querying for process querying
- Exact and approximate process querying methods
- Experience reports from implementations of process querying tools
- Event log querying
- Multi-perspective process querying methods, e.g., querying process resources, data, etc.
- Process querying of big (process) data
- Meta-models and architectures for process querying
- Applications of process querying methods for process compliance, standardization, reuse, etc.

Process Manipulation:

- Process querying for process redesign and improvement
- Evidence-based and online process repair
- Process correction, incl. label correction and log repair
- Process redesign and improvement using rich ontologies and real-world event data
- Management of process model repositories

Process Intelligence:

- AI techniques for process discovery, conformance checking, and process enhancement
- Process mining techniques for tackling problems in AI, like search, reasoning, and knowledge representation
- Process mining artifacts as knowledge representations for solving AI problems
- Process mining and multi-agent systems
- Process mining and automated planning
- Process mining and natural language processing
- Simulation for event log generation
- Genetic algorithms for process mining
- Information retrieval methods for process mining
- Explainable AI for process mining

SUBMISSION INSTRUCTIONS

Prospective authors are invited to submit papers for presentation in any of the areas listed above. The paper selection will be based upon the relevance of a paper to the main topics as well as upon its quality and potential to generate relevant discussion. Authors are requested to prepare submissions according to the format of the Lecture Notes in Business Information Processing (LNBIP) series by Springer (http://www.springer.com/computer/lncs?SGWID=0-164-6-791344-0). Submissions must be in English and must not exceed 12 pages (including figures, bibliography, and appendices). Each paper should contain a short abstract, clarifying the relation of the paper with the main topics (preferably using the list of topics above), clearly state the problem being addressed, the goal of the work, the results achieved, and the relation to other work. Papers should be submitted electronically as a self-contained PDF file via the submission system (https://easychair.org/conferences/?conf=icpm2022). When submitting your paper, in the submission system, please select the name of the workshop track "Seventh International Workshop on Process Querying, Manipulation, and Intelligence." Submissions must be original contributions that have not been published previously, nor already submitted to other conferences or journals in parallel with this workshop.

PUBLICATION

All workshop papers will be published by Springer as a post-workshop proceedings volume in the Lecture Notes in Business Information Processing (LNBIP) series. These proceedings will be made available to all registered participants approximately four months after the workshop, while preliminary proceedings will be distributed during the workshop. For each accepted paper, at least one author must register for the workshop and present the paper.

SPECIAL ISSUE

Authors of selected papers in PQMI 2022 will be invited to submit revised and extended versions of their work for a special issue in the Journal of Intelligent Information Systems (JIIS).

BEST PAPER AWARD

One accepted paper will receive the best paper award kindly sponsored by Celonis SE. The winner will be selected based on the paper reviews. If several papers receive similar review scores, the workshop organizers will select the award winner.

KEY DATES

- Abstract submission deadline: **10 August 2022**
- Paper submission deadline: **17 August 2022**
- Acceptance notification: 14 September 2022
- Camera-ready submission: 5 October 2022
- Workshop: **24 October 2022**

COMMITTEES

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