

## CALL FOR PAPERS – PQMI 2020

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

Padua, Italy, October 5, 2020

([www.processquerying.com/pqmi2020/](http://www.processquerying.com/pqmi2020/))

# 5th International Workshop on Process Querying, Manipulating, and Learning PQML 2020 | Padua, Italy | October 5, 2020

to be held in conjunction with the 2nd International Conference on Process Mining (ICPM 2020)



Photo by Heinz Bunse

Source: <https://www.flickr.com/photos/buffo400/48098915181/>

License: <https://creativecommons.org/licenses/by-sa/2.0/>

Changes: Cropped

The Fifth International Workshop on Process Querying, Manipulation, and Intelligence (PQMI 2020) 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 application of the representation models and approaches in Artificial Intelligence (AI), like knowledge representation, search, automated planning, reasoning, natural language processing, 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 2020 will be held in conjunction with the 2nd International Conference on Process Mining ([ICPM 2020](#)).

## WORKSHOP TOPICS

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

### 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 and event stream 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, including label correction and log repair
- Process redesign and improvement using rich ontologies and real-world event data
- Process manipulations for ensuring privacy, anonymity, and quality
- 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 multiagent systems
- Process mining and automated planning
- Simulation for event log generation
- Genetic algorithms for process mining
- Information retrieval methods for process mining

Case studies in process querying, manipulation, and intelligence

Empirical evaluations of process querying, manipulation, and intelligence techniques

## 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 submission system (<https://easychair.org/my/conference?conf=icpm2020>). When submitting your paper, in the submission system, please select the name of workshop track “Process Querying, Manipulation, and Intelligence 2020”. 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.

## KEY DATES

- Abstract submission deadline: **25 August 2020**
- Paper submission deadline: **1 September 2020**
- Notification: 14 September 2020
- Camera-ready submission: 22 September 2020
- Workshop: **5 October 2020**

## COMMITTEES

### ORGANIZERS

**Artem Polyvyanyy**, The University of Melbourne  
**Claudio Di Ciccio**, Sapienza University of Rome  
**Sebastian Sardina**, RMIT University  
**Renuka Sindhgatta**, Queensland University of Technology  
**Arthur ter Hofstede**, Queensland University of Technology

### PROGRAM COMMITTEE

<b>Agnes Koschmider</b> , Kiel University	<b>Jorge Munoz-Gama</b> , Pontificia Universidad Católica de Chile
<b>Anna Kalenkova</b> , The University of Melbourne	<b>Kanika Goel</b> , Queensland University of Technology
<b>Catarina Moreira Moreira</b> , Queensland University of Technology	<b>María Teresa Gómez-López</b> , Universidad de Sevilla
<b>Chiara Di Francescomarino</b> , Fondazione Bruno Kessler-IRST	<b>Maurizio Proietti</b> , CNR-IASI
<b>David Knuplesch</b> , alphaQuest	<b>Mieke Jans</b> , Hasselt University
<b>Fabrizio Maggi</b> , Free University of Bozen-Bolzano	<b>Minseok Song</b> , Pohang University of Science and Technology
<b>Hagen Völzer</b> , IBM Research - Zurich	<b>Pnina Soffer</b> , University of Haifa
<b>Han van der Aa</b> , University of Mannheim	<b>Rong Liu</b> , Stevens Institute of Technology
<b>Hyerim Bae</b> , Pusan National University	<b>Seppe Vanden Broucke</b> , Katholieke Universiteit Leuven
<b>Hye-Young Paik</b> , The University of New South Wales	<b>Shazia Sadiq</b> , The University of Queensland
<b>Jochen De Weerdt</b> , Katholieke Universiteit Leuven	

\* \* \* \* \*

Inquiries regarding PQMI 2020 can be addressed to [workshop@processquerying.com](mailto:workshop@processquerying.com)