

-in conjunction with the *International Conference on Business Process Management (BPM 2019)* in Vienna on Sep 2, 2019-

The world's most valuable resource is no longer oil, but data. The ultimate goal of data science techniques is not to collect more data, but to extract knowledge and insights from existing data in various forms. For analyzing and improving *processes*, event data is the main source of information. In recent years, a new discipline has emerged combining traditional process analysis and data-centric analysis: **Process-Oriented Data Science (PODS)**. The interdisciplinary nature of this new research area has resulted in its application for analyzing processes in different domains such as education, finances, and especially healthcare.

The *International Workshop on Process-Oriented Data Science for Healthcare 2019 (PODS4H19)* aims at providing a high-quality forum for interdisciplinary researchers and practitioners (both data/process analysts and medical audience) to exchange research findings and ideas on healthcare process analysis techniques and practices. PODS4H research includes a wide range of topics from process mining techniques adapted for healthcare processes, to practical issues on implementing PODS methodologies in healthcare centers' analysis units.



## Topics

Submitted works should involve the analysis, management, or improvement of processes using recorded data in the healthcare domain. Non process-centric approaches will fall out of scope. The workshop aims at both more theoretical contributions such as new techniques and algorithms, and more applied contributions such as methodologies and case studies.

The topics of interest include, but are not limited to:

- *Process Mining in Healthcare*
- *Process Discovery and Data-aided Process in Healthcare*
- *Conformance Checking and Compliance Analysis of Healthcare Processes*
- *Data-aided Process Enhancement and Repair*
- *Healthcare Process Prediction and Recommendation*
- *Healthcare Process Simulation*
- *Healthcare Process Optimization*
- *Process-Aware Hospital Information Systems Analysis and Data Extraction*
- *Interfaces for PODS4H*
- *Disease-driven PODS4H*
- *Methodologies and Best Practices for PODS4H*
- *Case Studies and Application of PODS4H*
- *WACI (Wild And Crazy Ideas) for PODS4H*

**Jorge Munoz-Gama** Pontificia Universidad Católica de Chile  
**Carlos Fernandez-Llatas** Universitat Politècnica de Valencia  
**Niels Martin** Hasselt University  
**Owen Johnson** University of Leeds

An initiative of the **Process-Oriented Data Science for Healthcare Alliance**  
[pods4h.com/alliance](http://pods4h.com/alliance)

### Regular Paper



### Success Case



Abstract submission (Regular):	17 May 2019
Paper submission (Regular):	24 May 2019
Notification of acceptance (Regular):	28 June 2019
Camera ready (Regular):	12 July 2019

Success Case submission:	8 July 2019
Success Case acceptance:	17 July 2019

Workshop day: 2 September 2019

-in conjunction with the **International Conference on Business Process Management (BPM 2019)** in Vienna on **Sep 2, 2019-**



© Wien tourism / Lois Lammerhuber

### **Program Committee**

Robert Andrews, Queensland University of Technology  
 Joos Buijs, Eindhoven University of Technology  
 Andrea Burattin, Technical University of Denmark  
 Dr. Daniel Capurro, Pontificia Universidad Católica de Chile  
 Josep Carmona, Universitat Politècnica de Catalunya  
 Claudio di Ciccio, Vienna University of Economics and Business  
 Marco Comuzzi, Ulsan National Institute of Science and Technology  
 Benjamin Dalmas, École des Mines de Saint-Étienne  
 Carlos Fernandez-Llatas, Universitat Politècnica de Valencia  
 Dr. René de la Fuente, Pontificia Universidad Católica de Chile  
 Roberto Gatta, Università Cattolica del Sacro Cuore  
 Emmanuel Helm, University of Applied Sciences Upper Austria  
 Zhengxing Huang, Zhejiang University  
 Owen Johnson, University of Leeds  
 Felix Mannhardt, SINTEF  
 Ronny Mans, VitalHealth Software  
 Niels Martin, Hasselt University  
 Renata Medeiros de Carvalho, Eindhoven University of Technology  
 Jorge Munoz-Gama, Pontificia Universidad Católica de Chile  
 Ricardo Quintano, Phillips  
 David Riaño, Universitat Rovira i Virgili  
 Eric Rojas, Pontificia Universidad Católica de Chile  
 Lucia Sacchi, University of Pavia  
 Fernando Seoane, Karolinska Institutet  
 Marcos Sepúlveda, Pontificia Universidad Católica de Chile  
 Minseok Song, Pohang University of Science and Technology  
 Emilio Sulis, Università di Torino  
 Pieter Toussaint, Norwegian University of Science and Technology  
 Vicente Traver, Universitat Politècnica de Valencia  
 Wil van der Aalst, RWTH Aachen University  
 Rob Vanwersch, Maastricht University Medical Center  
 Moe Wynn, Queensland University of Technology

**Regular:** Evaluated on the basis of significance, originality, technical quality, and potential to generate relevant discussion. Submissions must use the Springer LNCS/LNBIP format, be in English and must not exceed 12 pages (including figures, bibliography and appendices). Each paper should clarify the relation of the paper with the workshop main topics, clearly state the problem being addressed, the goal of the work, the results achieved, and the relation to other work.. Submissions must be original contributions that have not been published previously, nor already submitted to other conferences or journals in parallel with this workshop. Accepted papers will be published by Springer as a post-workshop proceedings volume in the series Lecture Notes in Business Information Processing (LNBIP). At least one author of each accepted paper must register and participate in the workshop. The best papers will be invited to submit an extended version on a fast-track at a JCR journal Special Issue.



**Success Cases:** Success cases are short accessible communications describing a PODS4H experience performed by a group or a company in a specific scenario, along with some analysis that provides insights and learning for the future. Submissions must be in English and must not exceed 2 pages in Springer LNCS/LNBIP format. The document must include a first-page footnote with the 'International Workshop on Process-Oriented Data Science for Healthcare (PODS4H) – Success Case' reference. At least one author of each accepted case must register and participate in the workshop. Accepted cases will be considered published work with oral presentation, being published online by PODS4H19 and authors will present it as a poster during the workshop's breaks.



**International Journal of  
Environmental Research  
and Public Health**

### **Journal Special Issue**

The best Regular papers will be invited to submit an extended version on a fast-track at the Special Issue on process-oriented data science of the International Journal of Environmental Research and Public Health (IJERPH). IJERPH is indexed in the Journal Citation Reports – Thomson Reuters, with a **5-Year Impact Factor of 2.6**. Notice that IJERPH is an open-access journal, and it is the authors responsibility to cover the Article Processing Charges if the paper is finally accepted.

Abstract submission (Regular):	17 May 2019
Paper submission (Regular):	24 May 2019
Notification of acceptance (Regular):	28 June 2019
Camera ready (Regular):	12 July 2019
Success Case submission:	8 July 2019
Success Case acceptance:	17 July 2019
Workshop day:	2 September 2019