



## JURIX 2018

The 31<sup>st</sup> International Conference on  
Legal Knowledge and Information  
Systems

Groningen, The Netherlands  
Het Kasteel  
12<sup>th</sup>-14<sup>th</sup> December 2018

<http://jurix2018.ai.rug.nl/>



## JURIX 2018 Conference Program

### Wednesday 12th December

#### Workshops

*09.00 Registration*

09.30 - 13.00 Morning Workshop Sessions  
(Coffee break at 11.00-11.30)

**Workshop I:** *AICOL – Artificial Intelligence and the Complexity of Legal Systems*

**Workshop II:** *TeReCom – Technologies for Regulatory Compliance*

**Workshop III:** *XAILA – EXplainable AI in Law*

**Workshop IV:** *Legal Design as Academic Discipline*

**Workshop V:** *Many Laws*

13.00 - 14.00 Lunch

14.00 - 17.00 Afternoon Workshop Sessions  
(Coffee break at 15.00-15.30)

**Workshop I:** *AICOL – Artificial Intelligence and the Complexity of Legal Systems and Doctoral Consortium*

**Workshop II:** *TeReCom – Technologies for Regulatory Compliance*

**Workshop III:** *XAILA – EXplainable AI in Law*

**Workshop IV:** *Legal Design as Academic Discipline*

**Workshop V:** *Many Laws*

**Workshop VI:** *CEILI – Legal Data Analysis*

Poster+Demo

*18.00-19.30 Welcome Reception*

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## **Thursday 13th December**

*08.30 – 18.30 Registration*

09.00 Prof. Jan Berend Wezeman, Dean of the Law School of University of Groningen

09.15 Opening remarks by Program Chair and Local Organization Co-Chairs

09.30 – 11.00 **Session I: Machine Learning for the Legal Domain**

*CHAIR: KEVIN ASHLEY*

Giuseppe Contissa, Koen Docter, Francesca Lagioia, Marco Lippi, Hans-Wolfgang Micklitz, Przemyslaw Palka, Giovanni Sartor and Paolo Torroni.

*Automated Processing of Privacy Policies under the EU General Data Protection Regulation*

Ingo Glaser, Elena Scepankova and Florian Matthes.  
*Classifying Semantic Types of Legal Sentences: Portability  
of Machine Learning Models*

Takahiro Yamakoshi, Takahiro Komamizu, Yasuhiro  
Ogawa and Katsuhiko Toyama.  
*Japanese Legal Term Correction using Random Forests*

Robert Bevan, Alessandro Torrisi, Katie Atkinson,  
Danushka Bollegala and Frans Coenen.  
*Efficient and Effective Case Reject-Accept Filtering: A  
Study Using Machine Learning [short]*

11.00 – 11.30. Break

11.30 – 13.00. **Session II: Machine Learning for the  
Legal Domain** *CHAIR: KATIE ATKINSON*

Josef Valvoda, Oliver Ray and Ken Satoh.  
*Using Agreement Statements to Identify Majority Opinion  
in UKHL Case Law*

Jaromír Šavelka and Kevin D. Ashley.  
*Segmenting U.S. Court Decisions into Functional and Issue  
Specific Parts*

Remi Wieten, Floris Bex, Henry Prakken and Silja Renooij.  
*Exploiting Causality in Constructing Bayesian Network  
Graphs from Legal Arguments*

Xin Tian, Yin Fang, Yang Weng, Yawen Luo and Zhu  
Wang.  
*K-means Clustering for Controversial Issues Merging in  
Chinese Legal Texts [short]*

13.00 – 14.00. Lunch

Lunch Time: Poster+Demo / Doctoral Consortium

14.00 – 15.00. **Invited talk**

**Marie-Francine Moens**, *KU Leuven*

*Deep Learning for Text Analytics and Generation in Law*

15.00 – 15.30. Break

15.30 – 17.00. **Session III: Legal Knowledge Extraction**

*CHAIR: ENRICO FRANCESCONI*

Roos Slingerland, Alexander Boer and Radboud Winkels.  
*Analysing the Impact of Legal Change through Case Classification*

Iosif Angelidis, Ilias Chalkidis and Manolis Koubarakis.  
*Named Entity Recognition, Linking and Generation for Greek Legislation*

Alessandra Cid, Alexandre Rademaker, Bruno Cuconato and Valeria de Paiva.  
*Linguistic Legal Concept Extraction [short]*

Jay Morgan, Adeline Paiement, Monika Seisenberger, Jane Williams and Adam Wyner.  
*A Chatbot Framework for the Children's Legal Centre [short]*

DC winner, runner-up 5 minutes

17:00– 18:00 **Session IV: Legal Knowledge Retrieval**

*CHAIR: ERICH SCHWEIGHOFER*

Diego Collarana, Timm Heuss, Jens Lehmann, Ioanna Lytra, Gaurav Maheshwari, Rostislav Nedelchev and Priyansh Trivedi.  
*A Question Answering System on Regulatory Documents*

Julien Rossi and Evangelos Kanoulas.  
*Query Generation for Patent Retrieval with Keyword  
Extraction based on Syntactic Features [short]*

Maximiliano Budán, Maria Laura Cobo, Diego C. Martínez  
and Antonino Rotolo.  
*Dealing with Qualitative and Quantitative Features in  
Legal Argumentation [short]*

18.00 Close

20.00 Conference Dinner

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## Friday 14th December

9.00 – 11.00. **Session V: Legal Reasoning and  
Argumentation: Theoretical and Practice Experiences**

*CHAIR: FLORIS BEX*

Sotiris Batsakis, George Baryannis, Guido Governatori,  
Ilias Tachmazidis and Grigoris Antoniou.  
*Legal Representation and Reasoning in Practice: A  
Critical Comparison*

Katie Atkinson and Trevor Bench-Capon.  
*Lessons From Implementing Factors with Magnitude*

Heng Zheng, Minghui Xiong and Bart Verheij.  
*Checking the Validity of Rule-based Arguments Grounded  
in Cases: a Computational Approach [short]*

Monica Palmirani and Guido Governatori.  
*Modelling Legal Knowledge for GDPR Compliance  
Checking*

Federico Cerutti, Timothy Norman and Alice Toniolo.

*A Tool to Highlight Weaknesses and Strengthen Cases:  
CISpaces.org [short]*

Arthur Crivella, Wesley Oliver and Morgan Gray.  
*Coding Suspicion [short]*

11.00 – 11.30. Break

**11.30 – 13.00. Session VI: Legal Knowledge Modelling  
and Visualization** *CHAIR: POMPEU CASANOVAS*

Armando Stellato, Andrea Turbati, Manuel Fiorelli,  
Tiziano Lorenzetti, Peter Schmitz, Enrico Francesconi,  
Najeh Hajlaoui and Brahim Batouche.  
*Towards the Assessment of Gold-Standard Alignments  
between Legal Thesauri*

Monica Palmirani, Cesare Bartolini, Michele Martoni,  
Livio Robaldo and Arianna Rossi.  
*Legal Ontology for Modelling GDPR Concepts and Norms*

Jörg Landthaler, Ingo Glaser and Florian Matthes.  
*Towards Explainable Semantic Text Matching [short]*

Nicola Lettieri, Delfina Malandrino and Alfonso Guarino.  
*E-science and the Law. Three Experimental Platforms for  
Legal Analytics*

13.00 – 14.00. Lunch

14.00 – 15:00. **Invited talk**

**Jeroen van den Hoven**, *Delft University of Technology*

*AI and Law: the need for Ethics by Design*

15.00 – 15.30. Break

**15:30 – 16.50. Session VII: Legal Blockchain**

*CHAIR: GUIDO GOVERNATORI*

Ugo Pagallo, Bassi Eleonora, Massimo Durante and Marco Crepaldi.

*Chronicle of a Clash Foretold: Blockchains and the GDPR's Right to Erasure*

Shaun Azzopardi, Gordon Pace and Fernando Schapachnik.

*On Observing Contracts: Deontic Contracts Meet Smart Contracts*

Oleksii Konashevych and Marta Poblet.

*Is Blockchain Hashing an Effective Method for Electronic Governance? [short]*

17.00 Closing