

# Artificial Intelligence and Law

Cesar Antonio Serbena  
[cserbena@gmail.com](mailto:cserbena@gmail.com)

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SPECIAL WORKSHOP.- 26th World Congress of Philosophy of Law and Social Philosophy of the International Association for Philosophy of Law and Social Philosophy (Internationale Vereinigung für Rechts- und Sozialphilosophie) (IVR).  
Human Rights, Democracy, Rule of Law and Contemporary Challenges in Complex Societies

Campus of the Federal University of Minas Gerais (UFMG),  
Belo Horizonte, Minas Gerais, Brazil  
Room 11  
25 July.- From 17 to 19

## JUSTIFICATION

The Special Workshop on Artificial Intelligence and Law intends to discuss the main following topics, but not limited to, both from a theoretical and practical point of view:

- formal and computational models of legal argumentation;
- deontic logic;
- non-classical logics (e.g. paraconsistent logic, fuzzy logic, non-monotonic logic, defeasible logic) applied to legal reasoning;
- techniques on artificial intelligence and its application to Law: fuzzy logic, neural networks, data mining in legal databases;
- formal models of probability.

## SELECTED PAPERS

BALANCING AND COHERENCE. A PROBABILISTIC ANALYSIS OF THE WEIGHT FORMULA PROPOSED BY ROBERT ALEXY.	Gonzalo Villa Rosas
APPLICATIONS OF DECISION-MAKING INFORMATICS TO LAW: FUZZY LOGICS AND NEURAL NETWORKS	Cesar Antonio Serbena
ARTIFICIAL INTELLIGENCE IN BRAZILIAN CUSTOMS LAW: THE FISCAL SELECTION	Maurício Dalri Timm do Valle Rosaldo Trevisan
A LEGAL REASONING SYSTEM FOR PROVING THE VALIDITY OF LEGAL SENTENCES	Hajime Yoshino