## **Programme**

Conference on Applications of Artificial Intelligence in Forensics

The conference programme is as follows.

## 09:30 Participants' check-in

Speakers and registered attendees check in at the registration desk and receive their welcome kit

## **10:00** Welcome by the conference chair

### Giovanna Parmigiani

Research fellow in Forensic Psychiatry Department of Human Neuroscience Sapienza University of Rome, Italy

# Artificial Intelligence and the legal system

### Chairperson

### Stefano Ferracuti

Professor in Forensic Psychopatology

# **10:10** Risk-based approach: a comparative perspective between GDPR and the EU proposal for a regulation on Artificial Intelligence

### Alessandro Del Ninno

Professor in Information Technology Law and Teleworking Law Department of Law LUISS University "Guido Carli", Rome, Italy

## **10:30** Guilt, punishment, dangerousness: the criminal law tested by artificial intelligence

### **Fabio Basile**

Professor in Criminal Law Law Department "C. Beccaria" University of Milan, Italy

# **10:50** Free conviction of the judge vs algorithm determinism. The judicial dilemma of contemporaneity

### Luca D'Auria

Professor in Law San Raffaele University, Milan, Italy

# **11:10** Perspectives and misunderstandings in quantitative legal prediction

#### Amedeo Santosuosso

Professor in Law, Science and New Technologies Department of Law University of Pavia, Italy

## 11:30 Discussion

### 11:40 Coffee break

Served in the hall foyer

## **Predictive justice**

### Chairperson

### Alessandro Del Ninno

Professor in Information Technology Law and Teleworking Law Department of Law LUISS University "Guido Carli", Rome, Italy

# **12:10** Artificial Intelligence and Neuroscience in algorithmic forensic risk assessment: possibilities and challenges

#### Leda Tortora

Marie Sklodowska-Curie Early Stage Researcher Trinity College Dublin, Ireland

# **12:30** Coherencies, incoherencies and risks in the proposed Al Act

#### Giovanni Comandé

Professor in Private Comparative Law Institute of Law, Politics and Development Scuola Superiore S. Anna, Pisa, Italy

# **12:50** Legal profession and Artificial Intelligence: opportunities and challenges

### Riccardo Borsari

Professor in Criminal Law Department of Public, International and Community Law University of Padua, Italy

# **13:10** Artificial Intelligence to support non-pecuniary losses compensation

#### **Denise Amram**

Assistant Professor in Law Institute of Law, Politics and Development Scuola Superiore S. Anna, Pisa, Italy

### 13:30 Discussion

### **Future trends**

### **Chairpersons**

#### Paolo Roma

Professor in Clinical Psychology Department of Human Neuroscience Sapienza University of Rome, Italy

### Giuseppe Sartori

Professor in Neuropsychology, Neuroscience, Cognitive Neuroscience Department of General Psychology University of Padua, Italy

# **14:40** Machine learning and neuroimaging data: potential translational application to the forensic setting

### Cristina Scarpazza

Assistant Professor in Neuroscience Department of General Psychology University of Padua, Italy

# **15:00** Responsible use of neurotechnology in criminal justice

### Gerben Meynen

Professor in Forensic Psychiatry
Willem Pompe Institute for Criminal Law and Criminology, Utrecht
University, The Netherlands
Professor in Ethics
Faculty of Humanities, Moral and Political Philosophy, Vrije University,
Amsterdam, The Netherlands

## **15:20** Side and Covert Channels: the Dr. Jekyll and Mr. Hyde of Modern Technologies

### Mauro Conti

Professor in Computer Science Department of Mathematics University of Padua, Italy

# **15:40** Forensic psychiatrists' decision making in assessing social dangerousness. A machine learning approach

### Giovanna Parmigiani

Research fellow in Forensic Psychiatry Department of Human Neuroscience Sapienza University of Rome, Italy

# **16:00** The Malicious use of Artificial Intelligence (MUAI) and radicalisation in the cyber-social ecosystem

### Arije Antinori

Professor in Criminology and Sociology of Deviance Department of Communication and Social Research Sapienza University of Rome, Italy

### 16:20 Discussion

### 16:30 Coffee break

Served in the hall foyer

# Malingering and manipulation in forensics

### **Chairperson**

### Gabriele Mandarelli

Assistant professor in Forensic Medicine Interdisciplinary Department of Medicine Section of Criminology and Forensic Psychiatry University of Bari "Aldo Moro", Italy

## **17:00** Bayesian Belief Networks and reasoning in forensic science

### Giuseppe Sartori

Professor in Neuropsychology, Neuroscience, Cognitive Neuroscience Department of General Psychology University of Padua, Italy

# **17:20** Detecting feigned depression in response patterns on the BDI-II and SIMS affective disorders scale

#### Paolo Roma

Professor in Clinical Psychology Department of Human Neuroscience Sapienza University of Rome, Italy

# 17:40 Detecting socially desirable responses in personality assessment

#### Cristina Mazza

Ph.D. Student

Department of Neuroscience, Imaging and Clinical Sciences University "G. D'Annunzio", Chieti-Pescara, Italy

# **18:00** Detecting deception through facial expressions. A comparison between human judges and machine learning models

### Merylin Monaro

Ph.D. Student in Brain, Mind and Computer Science Department of General Psychology University of Padua, Italy

18:20 Discussion

### **Panel session**

### Chairperson

### Giovanna Parmigiani

Research fellow in Forensic Psychiatry Department of Human Neuroscience Sapienza University of Rome, Italy

# **18:30** Current limitations and next challenges in the application of AI to forensics

### Arije Antinori

Professor in Criminology and Sociology of Deviance Department of Communication and Social Research Sapienza University of Rome, Italy

#### Alessandro Del Ninno

Professor in Information Technology Law and Teleworking Law Department of Law LUISS University "Guido Carli", Rome, Italy

#### Stefano Ferracuti

Professor in Forensic Psychopatology Department of Human Neuroscience Sapienza University of Rome, Italy

#### Gabriele Mandarelli

Assistant professor in Forensic Medicine Interdisciplinary Department of Medicine Section of Criminology and Forensic Psychiatry University of Bari "Aldo Moro", Italy

#### Paolo Roma

Professor in Clinical Psychology Department of Human Neuroscience Sapienza University of Rome, Italy

### 19:15 Conclusions

### Giovanna Parmigiani

Research fellow in Forensic Psychiatry Department of Human Neuroscience Sapienza University of Rome, Italy

## 19:25 End of conference

The Conference on Applications of Artificial Intelligence in Forensics is organised by <u>Department of Human Neuroscience, Sapienza University of Rome, Italy (https://web.uniroma1.it/neuroscienze/en)</u>

[ <u>english (programme.php?language=en)</u> | <u>italiano (programme.php?language=it)</u> ]