

3iA Côte d'Azur Annual Scientific Meeting

Day 1 — November 14th, 2022

08:30 - 09:00 Welcome with coffee

09:00 - 09:30 Opening from the 3iA Direction

Charles Bouveyron (Director)

Nicholas Ayache (Scientific Director)

Serena Villata (Deputy Scientific Director)

09:30 - 10:30 Session 1 — Core elements of AI
Chair: Serena Villata

09:30 Elena Cabrio (UCA)

AI and natural language

09:45 Charles Bouveyron (UCA)

Generative models for unsupervised and deep learning with complex data

10:00 Greger Ottosson (IBM)

Trustworthy AI and Explainable Decisions for Business Automation

10:15 Marco Lorenzi (Inria)

Interpretability and security of statistical learning in healthcare

10:30 - 11:00 Coffee break + Poster & Demo session presenting the activity of the students of 3IA Côte d'Azur Institute and the 3IA TechPool.

11:00 - 12:15 Session 2 – AI for integrative computational medicine

Chair: Maria Zuluaga

11:00 Nicholas Ayache (Inria)

AI for e-patients and e-medicine

11:15 Olivier Humbert (UCA, Centre Antoine Lacassagne)

Meeting the medical data challenges for AI-based precision medicine in oncology

11:30 Vicente Zarzoso (UCA)

IAblation: Artificial Intelligence for patient-centered atrial fibrillation ablation

11:45 Juliette Raffort-Lareyre (UCA, CHU Nice)

Applications of AI for patients with vascular diseases

12:00 Rachid Deriche (Inria)

Computational brain connectomics

12:15 – 12:30 Presentation of the 3IA TechPool by 3IA Côte d'Azur engineers

12:30 - 14:00 Lunch break + Poster & Demo session by 3iA Côte d'Azur students and 3iA TechPool

14:00 - 15:00 Session 3 – AI for computational biology and bio-inspired AI
Chair: Benoit Miramond

14:00 Frederic Cazals (Inria)

AIMS: Artificial intelligence for molecular studies

14:15 David Rouquie (Bayer)

Human health chemical risk assessments

14:30 Ellen van Obberghen-Schilling (INSERM)

AI-powered analysis of the tumor microenvironment

14:45 David Wales (University of Cambridge)

Solution landscapes for Machine Learning

15:00-16:00 Session 4 – AI for Smart and Secure Territories
Chair: Pierre Alliez

15:00 Melek Önen (Eurecom)

Privacy-preserving machine learning

15:15 Elena Di Bernardino (UCA)

Territorial Security through environmental risks management

15:30 Marina Teller (UCA)

Deep law for tech (DL4T)

Version 10/11/2022

15:45 Cédric Richard (UCA)

Distributed dark fiber optic sensing for smart cities monitoring

16:00 - 16:30 Coffee break + Poster & Demo session by 3IA Côte d'Azur students and 3IA TechPool

16:30 - 18:00 Session 5 – Core elements of AI
Chair: Charles Bouveyron

16:30 Serena Villata (CNRS)

Artificial argumentation for humans

16:45 Carlos Simpson (UCA)

AI and mathematics

17:00 Xavier Pennec (Inria)

Geometric statistics and geometric subspace learning

17:15 Jean-Daniel Boissonnat (Inria) / Mathieu Carrière (Inria)

Topological Data Analysis: an algorithmic perspective

17:30 Andrea Tettamanzi (UCA)

Towards an evolutionary epistemology of ontology learning

17:45 Marco Gori (University of Siena)

Life-long learning: Can machines learn to see without visual databases?

18:00 - 19:30 Cocktail + Poster & Demo session by 3IA Côte d'Azur students and 3IA TechPool

Day 2 – November 15th, 2022

09:30-10:30 Session 6 – Core elements of AI

Chair: Marco Lorenzi

09:30 Giovanni Neglia (Inria)

Pervasive Sustainable Learning Systems (PERUSALS)

09:45 Motonobu Kanagawa (Eurecom)

Machine Learning for Computer Simulation

10:00 Pierre-Alexandre Mattei (Inria)

Deep learning for dirty data: a statistical perspective

10:15 Vincent Vandewalle (UCA)

Finding structures in heterogeneous data

10:30-11:00 Coffee break + Poster & Demo session by 3iA Côte d'Azur students and 3iA TechPool

11:00-12:30 Session 7 – AI for integrative computational medicine

Chair: Olivier Humbert

11:00 Hervé Delingette (Inria)

Joint biological and imaging biomarkers in oncology

11:15 Maria Zuluaga (EURECOM)

Learning-based Models in Medical Imaging: Closing the Gap towards Clinical Translation

11:30 Francois Bremond (Inria)

Video analytics for human behavior understanding

11:45 Jean-Pierre Merlet (Inria)

Non-invasive assessment of disabilities

12:00 Maxime Sermesant (Inria)

AI and biophysical models for computational cardiology

12:15 Pierre Berthet-Rayne (Caranx Medical)

Autonomous surgical robots

12:30-14:00 Lunch break + Poster & Demo session by 3iA Côte d'Azur students and 3iA TechPool

14:00-15:00 Session 8 – AI for computational biology and bio-inspired AI
Chair: Ellen van Obberghen-Schilling

14:00 Laure Blanc-Feraud (CNRS)

Imaging for biology

14:15 Patricia Reynaud-Bouret (CNRS)

MEL: Modeling and estimating learning

14:30 Benoit Miramond (UCA)

Bio inspired AI from neurosciences to embedded autonomous devices

14:45 Pascal Barbry (CNRS)

Human Lung Atlas

15:00-16:00 Session 9 – AI for Smart and Secure Territories
Chair: Melek Önen

15:00 Pierre Alliez (Inria)

3D modeling of large-scale environments for the smart territory

Version 10/11/2022

15:15 Paola Goatin (Inria)

Data driven traffic management

15:30 Alix Lhéritier (Amadeus)

Improving the Air Travel Experience via Probabilistic Regression with Epistemic Uncertainty Estimation in Adversarial Scenarios

15:45 David Gesbert (Eurecom)

Internet of Learning Thing, a machine learning approach to future IoT networks

16:00-16:30 Coffee break + Poster & Demo session by 3iA Côte d'Azur students and 3iA TechPool

16:30 - 17:30 Session 10 – Core elements of AI
Chair: Giovanni Neglia

16:30 Jean-Charles Regin (UCA)

Decision Intelligence

16:45 Maurizio Filippone (EURECOM)

Probabilistic machine learning

17:00 Freddy Limpens (Mnemosyne)

Synaptix: a versatile and reactive architecture for building knowledge graphs for organizations

17:15 Fabien Gandon (Inria)

Combining artificial and augmented intelligence technics on and through the web

17:30 Closing remarks