Logic for the AI Spring

Lake Como School of Advanced Studies, September 12-16, 2022

Home

Logic for the AI Spring aims at bringing together logicians and other scientists working around and within the currently blossoming new AI Spring. The key idea behind the School is that, in addition to a glorious past which must not be forgotten, logic has a fundamental role to play, which is still largely in the making, in the future of AI research and applications. Researchers entering the field now have an opportunity to shape logic-based AI in the years to come. Hence the School is designed to help them become culturally aware of the larger picture, which is made of urgent scientific and societal challenges, against which the unprecedented successes of the present AI Spring must be evaluated.

To pursue this goal, the School will feature four 8-hour tutorials:

– **History and culture of A**I (Stephanie Dick, Simon Fraser University)

– **Combining Machine Learning and Theorem Proving** (Josef Urban, Czech Institute of of Informatics, Robotics and Cybernetics)

– **Multiagent Systems (**Michael Wooldridge, Oxford University)

– **Logi**c (Alessandra Palmigiano, VU Amsterdam)

In addition, a selection of participants will have an opportunity to present their own work in dedicated **Work in Progress** (WiP)sessions. Those will give early stage researchers an opportunity to receive feedback and advice from the School lecturers. The following is a (non exhaustive) list of topics in which we welcome WiP submissions:

- Knowledge representation and reasoning in AI
- Logical methods in AI
- Uncertainty and decision-making in AI
- Computational social choice
- Explainable AI
- Human-compatible AI.

Finally, we agreed with the **International Journal of Approximate Reasoning** for a Special Issue to follow up on the themes covered in the School. Applicants are particularly encouraged to submit their original research to the SI (the usual refereeing procedure applies to guarantee the highest scientific standards).

On **Saturday 17 September** a one day workshop on "Bias, Risk and Opacity in AI" organised by members of the BRIO Research project (sites.unimi.it/brio) will take place at the Department of Philosophy, University of Milan. Participants to the Summer School are welcome to attend. A poster session for PhDs and Postdocs will be organised and School attendees are very welcome to present their current research (whether they have been selected or not for presentation at the Summer School. Please contact Giuseppe Primiero giuseppe.primiero@unimi.it for information

This event has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 101007627.

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Program

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PROGRAM

	9-11		11:30 - 1		2:30-4		4:30-6	6-8
Monday	MAS 1	Coffee	MAS 2	LUNCH	History and Culture of AI 1	Coffee	History and Culture of AI 2	Welcome Aperitivo
Tuesday	Machine learning and theorem proving 1	Coffee	Machine learning and theorem proving 2	LUNCH	History and Culture of AI 3	Coffee	History and Culture of AI 4	
Wednesday	MAS 3	Coffee	MAS 4	LUNCH	Machine learning and theorem proving 3	Coffee	Machine learning and theorem proving 4	
Thursday	Logic 1	Coffee	Logic 2	LUNCH	WiP Katona Di Pierro Iatrou Lindqvist	Coffee	WiP Bizzarri Tagliaferri Varricchione	General Lecture by M. Wooldridge and aperitivo
Friday	Logic 3	Coffee	Logic 4	LUNCH	WiP Ramos-Gonzalez Kogkalidis Dautovic Alnazer		WiP Albert Godziszewski Nicoletti Solares-Rojas	

PLEASE NOTE: for all studentes involved in Work In Progress presentations – you will have 20 minutes time

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