



## Preface to the Proceedings of the

### 35th edition of the Italian Conference on Computational Logic (CILC 2020)

The Italian Conference on Computational Logic (CILC 2020) is the annual conference organized by GULP (Group of researchers and Users of Logic Programming<sup>1</sup>). Since the first event of the series, which took place in Genoa in 1986, the annual GULP conference represents a major opportunity for users, researchers and developers working in the field of computational logic to meet and exchange ideas; furthermore, over the years, the conference broadened its horizons from the specific field of logic programming to include topics such as declarative programming, verification of formal systems, knowledge representation, deductive databases and applications in the broader area of artificial intelligence.

The CILC series has always been important for the community; it is a sort of “traditional” event, especially for Italian researchers, even if its scope became more and more international over the years. The 35th edition was originally meant to “come back” to the University of Calabria, that already hosted the 25th edition exactly 10 years before, and was planned to take place in September 2020. Unfortunately, the novel coronavirus COVID-19 pandemic and the consequent global health crisis prompted the Conference Chairs, in agreement with the GULP Executives, to hold CILC 2020 as a fully virtual event that took place from 13 to 15 October, 2020.

Despite the very peculiar and difficult global situation, the community significantly responded to the call, thus allowing the technical program of CILC 2020 to feature 29 presentations of high-quality papers; 25 out of 29 were original works, while the remaining 4 ones appeared or were submitted to other conferences, workshops or journals. It is worth remembering that the accepted papers went through a strict evaluation procedure, as each submission was evaluated by three anonymous reviewers from the Program Committee.

Accepted contributions ranged from foundations and theoretical results to practical experiences, case studies and applications, and covered a wide range of

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<sup>1</sup> <http://www.programmationelogica.it>

hot topics related to computational logic in a broad sense, including agents and multi-agent systems, logic programming, argumentation, ontologies, languages, healthcare, and more. The program sessions were organized according to four kind of macro-areas, namely: *Theory and Foundations*, *Formal Methods*, *Language, Tools and Applications* and *Answer Set Programming*.

The program was also enriched by three keynotes and a tutorial, all given by renowned international experts:

- *On the informal semantics of knowledge representation languages and the case of Logic Programming*, by Marc Denecker from the KU Leuven, Belgium;
- *Reversibility of Actions and Plans*, by Wolfgang Faber from the University of Klagenfurt, Austria;
- *Computational Argumentation - Formal Models and Complexity Results*, by Stefan Woltran from the Vienna University of Technology, Austria;
- *Introduction to Probabilistic Ontologies (Tutorial)*, by Rafael Penaloza, from University of Milano-Bicocca, Italy.

CILC 2020 also awarded two works nominated among all accepted original papers, via a secret ballot among the Program Committee members:

- **Best Paper Award**, to Nicola Rizzo and Agostino Dovier for the work: *3coSoKu and its logic programming modeling*;
- **Best Practical Impact Award**, to Francesco Fabiano and Alessandro Dal Palù, for the work: *An ASP approach for arteries classification in CT scans*.

We would like to thank all the people who have contributed to CILC 2020. We start from all the authors of the submitted papers, the invited speakers, the program committee, the reviewers; indeed, the quality of the technical program was due to the job of many, many people. We are grateful also to the President of GULP, Stefania Costantini, and all GULP executives, for their support and their fruitful suggestions in non-trivial decision times. Furthermore, special thanks must go to all attendees (the CILC-ers!) and the Session Chairs, that made CILC 2020 an actual and pleasant place for discussing, brainstorming and effectively exchanging ideas.

Thank you all!

October 2020 – Rende, Italy

Francesco Calimeri  
Simona Perri  
Ester Zumpano

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