

# ANNOUNCEMENT



## Fiftieth anniversary of Prolog

50 years ago, Alain Colmerauer laid the foundations of Prolog, the first computer language for “logic programming”. It has become one of the key tools of Artificial Intelligence (AI), largely overtaking the programming language LISP.

After its glory days in the 80’s, with the worldwide aftermath of the Japanese 5th Generation Computer Systems Project, Prolog entered, along with expert systems and AI more generally, into a long cold winter, with the prospects of a terminal decline.

In the meanwhile, with the resurgence of neural networks applied to deep learning, AI has been reborn and given birth to many significant applications, ranging from facial recognition to natural language processing.

# ANNOUNCEMENT

However, these breakthrough advances in machine learning do not replace the need for declarative, symbolic methods in AI and in other areas of computing.

More than ever, symbolic methods of the kind employed in Prolog-like logic programming are needed to explain the decisions made by AI systems, whether the decisions are arrived at by deep learning or by explicit knowledge representation.

Symbolic approaches are essential for most applications outside of AI, including the solution of complex combinatorial problems in mathematical optimization, for which Prolog-based constraint logic programming has enabled significant advances.

Symbolic approaches are also needed for more conventional information processing applications, such as those extending relational databases, which share the same logical foundations as logic programming.

In all such cases, Prolog-like logic programming provides a high level of abstraction and expressive power, which can be used both for rigorous program specifications and for efficient implementations.

It is no exaggeration to say that the symbolic, rule-based, declarative style of Prolog-like logic programming has the potential to serve as a foundation for more general-purpose and human-oriented computer languages in the future.

# ANNOUNCEMENT

It is now five years after the creator of Prolog passed away, and fifty years since Prolog was born. We celebrate this 50th anniversary of Prolog to inspire the future, by promoting symbolic AI and rule-based declarative computing more generally.

As announced last October during the Commemoration organized by the University of Aix-Marseille, the “Year of Prolog 2022” will involve two related initiatives:

- A. An Alain COLMERAUER Prize awarded by an international jury which will close a contest open to all for the most significant achievement in Prolog technology.
- B. A “Prolog School Bus” that will travel to reintroduce declarative programming concepts to the younger generation. This is a long-term initiative which will be initiated during the year. The purpose of this “Tour de France” (and elsewhere) will be to familiarize schoolchildren with Prolog, as they are already familiar with the Scratch language<sup>1</sup>.  
At the end of this school caravan, a prize will be awarded to the ‘nicest’ Prolog program written by a student.  
The logistics for this event will require the collaboration of as many people as possible.

The organization will be ensured through the following mechanism:

- I. A Founding Committee whose members, on the initiative of Bob Kowalski, Jean Rohmer, and Célestin Sedogbo, are the signatories of this call<sup>2</sup>.
- II. A Patronage Committee: the largest possible group of natural or legal persons from different countries of the world.

---

<sup>1</sup> [https://fr.wikipedia.org/wiki/Scratch\\_\(langage\)](https://fr.wikipedia.org/wiki/Scratch_(langage)).

<sup>22</sup> [http://www.prolog-heritage.org/en/Prolog\\_50.html](http://www.prolog-heritage.org/en/Prolog_50.html)

# ANNOUNCEMENT



**50<sup>e</sup>** anniversaire de Prolog  
Prolog **50<sup>th</sup>** anniversary

A more human-oriented, general-purpose  
computer language for the future.