

Logic Programming and Non-monotonic Reasoning from 1991 to 2019: a Personal Perspective

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The field of logic programming and nonmonotonic reasoning was born in 1991, when a number of researchers working in “the theoretical ends” of logic programming and artificial intelligence gathered in Washington D.C. for the first LPNMR workshop, which was organized by Anil Nerode, Wiktor Marek, and V.S. Subrahmanian. I was privileged to attend this meeting; to closely observe the development of the field over the past 28 years; and to witness many remarkable achievements, which in 1991 I would not have believed to be possible. In this talk I plan to discuss some of these achievements and share a number of personal observations on the field’s history, current state, and possible future directions. Among other things, I will comment on the development of powerful knowledge representation languages, the design and implementation of non-monotonic reasoning systems, and use of these languages and systems in formalizing various types of knowledge and reasoning tasks. The talk is not meant to be a survey of the field, rather it is my personal perspective limited to a small, but important, collection of topics I am most familiar with.