



## Department of Computer Science

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To Whom It May Concern:

It is my greatest pleasure to provide this letter in support of the project LEAP (Logic Environments with Advanced Parallelism). The project proposes to investigate the automatic exploitation of parallelism from large real-world applications on multi-core platforms.

The target of this project is logic programming; logic programming is a very well-established programming paradigm with foundations in mathematical logic and theorem proving. In recent years, the paradigm has received a significant boost of interest and popularity, thanks to the development novel flavors of logic programming (e.g., Answer Set Programming) that provide compact and efficient solutions to complex problems in many application domains (e.g., planning, knowledge representation, bioinformatics).

With the advent of multi-core platforms, parallelism has become one of the most important aspects of modern software development practices. Logic programming has unique features that have been shown to facilitate the automatic extraction of parallelism from programs, facilitating the automatic use of the computing power offered by modern architectures; in this sense, logic programming has the potential of significantly advancing the state-of-the-art in software development of multi-core platforms.

The team at the University of Porto has a long history of research and development in the areas of logic programming and parallelism, and it is perfectly placed to take advantage of this new scenarios. This team is probably the only team in the world that has the knowledge and vision to accomplish the proposed project. They have the expertise necessary to develop new architecture capable of extracting top performance from large applications on multi-core platforms. The design of the LEAP project is innovative, and yet grounded in many years of research experience.

I would also like to pledge my collaboration to this existing project.

I thank you in advance for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to be 'EP', with a long horizontal stroke extending to the right.

Enrico Pontelli  
Head, Department of Computer Science