

Position as PhD-Researcher in EU FP7 project *LarkC*

STI Innsbruck is one of the key players in the area of semantic technologies with excellent ties to other relevant public and corporate research institutions worldwide.

We offer

- The stimulating environment of a leading research group in the fields of Semantic Web, Semantic Web Services and formal languages and reasoning.
- Long-term collaboration to well-known academic institutions and major companies around the world.
- A multicultural working place with state-of-the-art infrastructure and resources including funding for attending international conferences, PhD symposia, summer schools, etc.

We seek

- A PhD researcher with strong background in Computer Science and focused research interest and expertise in at least one of the following areas: reasoning, logic programming, probabilistic reasoning, formal languages, information theory, machine learning, game theory.
- Willingness to work in the EU FP7 project LarkC.

Current Semantic Web reasoning systems do not scale to the requirements of their hottest applications, such as analyzing data from millions of mobile devices, dealing with terabytes of scientific data, and content management in enterprises with thousands of knowledge workers.

The Large Knowledge Collider (LarkC, for short, pronounced "lark"), a **platform for massive distributed incomplete reasoning** will remove these scalability barriers. This will be achieved by:

- **Enriching the current logic-based Semantic Web reasoning methods** with methods from information retrieval, machine learning, information theory, databases, and probabilistic reasoning,
- Employing **cognitively inspired approaches and techniques** such as spreading activation, focus of attention,

reinforcement, habituation, relevance reasoning, and bounded rationality.

- Building a **distributed reasoning platform** and realizing it both on a high-performance computing cluster and via "computing at home".

The project consortium is an **interdisciplinary team** of engineers and researchers in Computing Science, Web Science and Cognitive Science, well qualified to realize this ambitious vision. The Large Knowledge Collider will be an **open architecture**. Researchers and practitioners from outside the consortium will be encouraged to develop and plug in their own components to drive parts of the system. This will make the Large Knowledge Collider a **generic platform**, and not just a single reasoning engine.

The project will run for 42 months starting in April 2008.

For further information regarding our organization, research and projects, please see <http://www.sti-innsbruck.at>.

We kindly invite you to submit your application to hr.at@deri.at. Please include a current resume, a list of publications (if applicable), and digital versions of your most relevant works (such as graduation thesis or latest publications).