

## Workshop on Neural-Symbolic Learning and Reasoning (NeSy'05)

### Call for Papers

Edinburgh, Scotland, August 1<sup>st</sup>, 2005

Artificial Intelligence researchers continue to face huge challenges in their quest to develop truly intelligent systems. The recent developments in the field of neural-symbolic integration bring an opportunity to integrate well-founded symbolic artificial intelligence with robust neural computing machinery to help tackle some of these challenges.

The Workshop on Neural-Symbolic Learning and Reasoning is intended to create an atmosphere of exchange of ideas, providing a forum for the presentation and discussion of the key topics related to neural-symbolic integration. Topics of interest include:

- The representation of symbolic knowledge by connectionist systems;
- Integrated neural-symbolic learning approaches;
- Extraction of symbolic knowledge from trained neural networks;
- Integrated neural-symbolic reasoning;
- Biological inspiration for neural-symbolic integration;
- Applications in robotics, semantic web, engineering, bioinformatics, etc.

#### *Submission*

Researchers and practitioners are invited to submit original papers that have not been submitted for review or published elsewhere. Submitted papers must be written in English and should not exceed 8 pages in the case of research and experience papers, and 4 pages in the case of position papers (including figures, bibliography and appendices). All submitted papers will be judged based on their quality, relevance, originality, significance, and soundness. Papers must be submitted directly by email in PDF format to [nesy@soi.city.ac.uk](mailto:nesy@soi.city.ac.uk)

#### *Presentation*

Selected papers will be presented during the workshop. The workshop will include extra time for audience discussion of presentations allowing the group to have a better understanding of the issues, challenges, and ideas being presented.

#### *Publication*

Accepted papers will be published in official workshop proceedings, which will be distributed during the workshop. Authors of the best papers will be invited to submit a revised and extended version of their papers to a special issue of the Journal of Applied Logic, Elsevier, to be published early in 2006.

#### *Important Dates*

Deadline for submission: 25<sup>th</sup> of March, 2005  
Notification of acceptance: 25<sup>th</sup> of April, 2005  
Camera-ready paper due: 16<sup>th</sup> of May, 2005  
Workshop day: 1<sup>st</sup> of August, 2005  
IJCAI 2005 main conference dates: 30<sup>th</sup> of July to 5<sup>th</sup> of August, 2005

#### *Programme Committee*

Artur d'Avila Garcez (City University London, UK) *co-chair*  
Jeff Elman (UC San Diego, USA) *co-chair*  
Marco Gori (University of Siena, Italy)  
Pascal Hitzler (University of Karlsruhe, Germany) *co-chair*  
Luis Lamb (UFRGS, Brazil)  
Vasile Palade (Oxford University, UK)  
Antony K. Seda (University College Cork, Ireland)  
Jude Shavlik (University of Wisconsin, USA)  
Stefan Wermter (University of Sunderland, UK)

Howard Blair (Syracuse University, USA)  
Dov Gabbay (Kings College London, UK)  
Barbara Hammer (TU Clausthal, Germany)  
Steffen Hölldobler (TU Dresden, Germany)  
John Lloyd (The Australian National University, Australia)  
Asim Roy (Arizona State University, USA)  
Rudi Setiono (National University, Singapore)  
Alessandro Sperduti (University of Padua, Italy)  
Gerson Zaverucha (UFRJ, Brazil)

#### *Keynote speakers*

Steffen Hölldobler (TU Dresden, Germany)  
Ron Sun (Rensselaer Polytechnic Institute, USA)

#### *Additional Information*

For additional information, see <http://www.neural-symbolic.org/NeSy05/>

General questions concerning the workshop should be addressed to [nesy@soi.city.ac.uk](mailto:nesy@soi.city.ac.uk)