### **QR07**

## 21st Annual Workshop on Qualitative Reasoning

### Wednesday 27th June

8:30am Registration Room A14, Hugh Owen Building

8:45 Welcome

9am Session 1 Room A14, Hugh Owen Building

Plenty of Blame to Go Around: A Qualitative Approach to Attribution of Moral Responsibility, *Emmett Tomai, Ken Forbus* 

Arguing About Radioisotope Dating, Laura Rassbach, Elizabeth Bradley, Kenneth Anderson, Christopher Zweck, Marek Zreda

Using Qualitative Representations and Analogical Mapping to Solve Problems from a Spatial Intelligence Test, *Andrew Lovett, Kenneth Forbus, Jeffrey Usher* 

10:30 Coffee Break Wasdell Room, Penbryn

11am Session 2 Room A14, Hugh Owen Building

On Choosing Abstractions for Hierarchical Diagnosis, Fabien Perrot, Louise Travé-Massuyès

M2 CIRQ: Qualitative fluid flow modelling for aerospace FMEA application, Neal Snooke

Generating test-cases from qualitative knowledge, Franz Wotawa

12:30 Lunch Wasdell Room, Penbryn

2pm Session 3 Room A14, Hugh Owen Building

On Qualitative Probabilities for Legal Reasoning about Evidence, Jeroen Keppens

Learning Financial Rating Tendencies with Qualitative Trees, *Llorenç Roselló, Mónica Sánchez, Núria Agell, Francesc Prats* 

Using aggregation for automatic identification of work processes in the managerial hierarchy, *Bahadır Kaan Özütam and Cem Say* 

3:30 Coffee break Wasdell Room, Penbryn

4pm Business meeting Room A14, Hugh Owen Building

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### Thursday 28th June

9am Session 4

Room A14, Hugh Owen Building

Capturing and Categorizing Mental Models of Food Webs using QCM, *Morteza Dehghani, Sara Unsworth, Andrew Lovett, Kenneth D. Forbus* 

A formal theory of qualitative size and distance relations between regions, *Thomas Bittner, Maureen Donnelly* 

A Common Framework for Qualitative and Quantitative Modelling, Klaus Eisenack

10:30 Coffee Break Wasdell Room, Penbryn

11am Session 5 Room A14, Hugh Owen Building

Learning Domain Theories via Analogical Transfer, Matthew Klenk, Kenneth D. Forb

Induction of qualitative models using discrete Morse theory, *Jure Žabkar, Gregor Jerše, Neža Mramor, Ivan Bratko* 

Advanced Experiments for Learning Qualitative Compartment Models, *Wei Pang, George M. Coghill* 

12:30 Lunch Wasdell Room, Penbryn

2pm Poster Presentations Room A14, Hugh Owen Building

Behaviour Prioritisation in Fuzzy Qualitative Simulation, George M. Coghill

Learning Qualitative Models through Partial Derivatives by Padé, *Jure Žabkar, Ivan Bratko, Janez Demšar* 

Provably spurious qualitative simulation predictions that just won't go away, *Nuri Taşdemir*, *A. C. Cem Say* 

Qualitatively Constrained Equation Discovery, Jure Žabkar, Aleksander Sadikov, Ivan Bratko, Janez Demšar

Dynamic domain abstraction through meta-diagnosis, Johan de Kleer

Knowledge Representation for Fuzzy Model Composition, Xin Fu, Oiang Shen

From Whiteboard to Model: A Preliminary Analysis, Praveen Paritosh, Will Bridewell

3:30 Coffee break and posters Wasdell Room, Penbryn

4:30 Tour of Robot Labs

5:30 Depart for Devils Bridge from outside Penbryn Hall (until 11pm)

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## 21st Annual Workshop on Qualitative Reasoning

#### Friday 29th June

9am NaturNet-REDIME Session

Room A14, Hugh Owen Building

Special Feature on the NaturNet-Redime Project on Sustainable Development:

NaturNet-Redime introduction, Tim Nuttle

Case studies & Library, Paul Salles

Modelling challenges, Bert Bredeweg

Tools (particularly model sharing and reuse), Jochem Liem

Questions & Discussion

10:30 Coffee Break and posters

Wasdell Room, Penbryn

#### Posters on NaturNet-REDIME papers:

- A Garp3 Model of Environmental Sustainability in the Danube Delta Biosphere Reserve based on Qualitative Reasoning Concept, *Eugenia Cioaca, Bert Bredeweg, Paulo Salles, Tim Nuttle*
- Collaborative Conceptual Modeling: Share, Search and Reuse, *Jochem Liem, Anders Bouwer and Bert Bredeweg*
- A Garp3 model of environmental sustainability in the River Mesta (Bulgaria), *Elena Nakova, Bert Bredeweg, Paulo Salles, Tim Nuttle*
- Integrative qualitative modelling of ecological and socio-economic aspects of river-rehabilitation in England, *Richard Noble, Tim Nuttle, Paulo Salles*
- Modelling sustainability in the Riacho Fundo water basin (Brasília, Brazil), *Paulo Salles, Bert Bredeweg, Ana Luiza Rios Caldas, Tim Nuttle*
- The riverine landscape Kamp (Austria): an integrative case study for qualitative modeling of sustainable development, *Andreas Zitek, Susanne Muhar, Sabine Preis, Stefan Schmutz*

11:15am Final session Room A14, Hugh Owen Building

12 midday Lunch Wasdell Room, Penbryn