

# CSPRC 2014

14<sup>th</sup> Computer Science Postgraduate Research Colloquium

Wednesday, 4<sup>th</sup> June 2014  
Arts Lecture Theatre 1

## Session 1: Machine Learning

chaired by Horacio Caniza Vierci

- 10:00 a.m. \_\_\_\_\_  
**Chenzhe Zhou**  
Probabilistic prediction under unconstrained randomness
- 10:20 a.m. \_\_\_\_\_  
**James Smith**  
Anomaly detection of trajectories with kernel density estimation by conformal prediction
- 10:40 a.m. \_\_\_\_\_  
**Ulrich Schaechtle**  
Causal discovery with Gaussian processes
- 11:00 a.m. \_\_\_\_\_  
Tea/coffee break

## Session 2: Logic, Types and Language Engineering

chaired by Ulrich Schaechtle

- 11:20 a.m. \_\_\_\_\_  
**Robert Michael Walsh**  
Extending lexical analysis to generalised parsing
- 11:40 a.m. \_\_\_\_\_  
**Ionuț Țuțu**  
What is a logic-programming language?
- 12 noon \_\_\_\_\_  
**Fjodor Part**  
Type-theoretic description of higher categories
- 12:20 p.m. \_\_\_\_\_  
Lunch break

## Poster Presentations

in ABG024 – Arts Building Ground floor room 24

- 13:00 p.m. \_\_\_\_\_  
**Jamie Al-Nasir**  
Investigation into the annotation of sequencing protocol steps on the Illumina platform in genomic data repositories

**Jennifer Cole**

Real-time epidemiology and epidemic containment using social media

**Andrej Žukov Gregorič**

Information diffusion

**Georgiana Lungu**

Category theoretical intuitions for type theory applications

**Bin Sheng**

Parameterized directed  $k$ -Chinese postman problem and  $k$  arc-disjoint cycles problem on Euler digraphs

### **Session 3: Bioinformatics**

chaired by Ionuț Țuțu

13:40 p.m.

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**Horacio Caniza Vierci**

A disease similarity based on an ontological analysis of phenotypic descriptions

14:00 p.m.

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**Jiaxin Kou**

Interactive high dimensional data exploration and analysis using Proxigram Viewer

14:20 p.m.

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Tea/coffee break

### **Session 4: Intelligent Systems**

chaired by James Smith

14:40 p.m.

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**Bedour Alrayes**

Adaptive decision-making model in a dynamic negotiation environment

15:00 p.m.

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**Khuong Nguyen**

Semi-automatic indoor fingerprinting database crowdsourcing with continuous movements and social contacts

15:20 p.m.

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### **Questions/Discussion**

