

XIV EUCARPIA SECTION MEETING DUNDEE SEPTEMBER 2–4 2009

PROGRAMME

TUESDAY, SEPTEMBER 1

12:30 – 13:30 Pre-conference workshop, arrival and lunch

13:30 – 17:00 Pre-conference Biometris Workshop at SCRI, Invergowrie, Dundee

WEDNESDAY, SEPTEMBER 2

08:30 Registration and coffee

09:00 Welcome and Housekeeping (Fred van Eeuwijk – Section chair)

SESSION 1: Association Mapping – Chair: Fred van Eeuwijk

09:15 – 10:00 Invited Lecture: *Ed Buckler* – Analysis of Flowering Time Using a Massive Maize Mapping Panel

10:00 – 10:20 *Zewei Luo* – Inferring Linkage Disequilibrium from Non-random Samples

10:20 – 10:40 *Bjorn D'hoop et al.* – Association Mapping in Tetraploid Potato

10:40 – 11:00 Coffee

11:00 – 11:20 *Marcos Malosetti et al.* - Gene and QTL detection in a three way barley cross by means of mixed models with kinship information

11:20 – 11:40 *Jon White, Ian Mackay and David Balding* – Association mapping in inbreeding cereal crops

11:40 – 12:00 *Jerko Gunjača and Jean-Luc Jannink* – Association mapping in barley: two rows vs. six rows

12:00 – 12:20 *Jordi Comadran and the AGOUEB Consortium* – Association genetics analysis of thousand grain weight in elite spring barley germplasm

12:20 – 13:00 Poster Mounting

13:00 Lunch

SESSION 2: Selection Responses – Chair: Chris Schoen

14:00 – 14:40 Invited lecture: *Mark Cooper* (TBA)

14:40 – 15:00 *Hans-Peter Piepho* – Mixed model procedures for genome-wide selection

15:00 – 15:20 *Hiroyoshi Iwata* – Prospect for genomic selection in forest tree breeding

15:20 – 15:40 Coffee

15:40 – 16:20 Invited Lecture: *Ian Mackay* – Reanalyses of historical series of variety trials: lessons from the past and opportunities for the future

16:20 – 16:40 *Guoyou Ye and Kevin F. Smith* – Selecting parental genotypes for the development of elite breeding population in forage breeding using clonal selection and marker-based selection

16:40 – 17:00 *Satish Kumar* – Development of the New Zealand Apple Breeding Population: A synthesis of genetic parameters, genetic gain and diversity from three generations of recurrent selection

17:00 – 18:00 Poster viewing

18:30 [Transport to Dundee City Chambers](#)

18:45 [Lord Provost's Drinks/Bufferet reception at Dundee City Chambers](#)

19:45 [Transport returning to Apex Hotel](#)

20:00 Dinner

THURSDAY, SEPTEMBER 3

SESSION 3: Statistical methods – Chair: Ignacio Romagosa

08:30 – 09:10 Invited Lecture: *Sue Welham* (TBA)

09:10 – 09:30 *Gerrit Gort and Fred van Eeuwijk* – On surprising statistical properties of AFLP

09:30 – 09:50 *Paul Eilers and Hae-Won Uh* – AFLP mixture models and haplotype estimation

09:50 – 10:10 *Steven Maenhout* – Marker-based estimation of the coefficient of coancestry in hybrid breeding programmes

10:10 – 10:30 Coffee

10:30 – 10:50 *Marco Bink et al.* – Decomposition of IBD probability matrices by a latent ancestor allele model and its application in QTL analysis

10:50 – 11:10 *Thomas L. Odong et al.* – Determination of genetic structure of germplasm collections: Are traditional hierarchical clustering methods appropriate for genetic marker data?

11:10 – 11:30 *Jos Hageman and Fred van Eeuwijk* – Two-mode clustering for genotype by trait and genotype by environment data

11:30 – 11:50 *Ralph van Berloo and Jose Guerra* – Non-destructive repeated phenotyping on vegetable crops using image analysis

11:50 – 12:20 Business Meeting – Chair Fred van Eeuwijk

12:20 – 13:00 Posters

13:00 Lunch

14:30 [Transport to Edradour Whisky Distillery](#)

16:00 – 17:30 [Tour of Edradour Distillery including whisky tasting](#)

18:00 Transport back to Apex Hotel

19:45 Conference Dinner and Presentation to Mike Kearsey on board HM Frigate Unicorn

FRIDAY, SEPTEMBER 4

SESSION 4: Systems biology – Chair: Kristian Kristensen

09:00 – 09:40 Invited Lecture: *Dirk Husmeier* (TBA)

09:40 – 10:00 *Animesh Acharjee and Chris Maliepaard* – Relating potato flesh colour to a metabolomics data set

10:00 – 10:20 *Glenn Bryan et al.* - Genetic and biochemical analysis of sensory, volatile and textural traits in potato

10:20 – 10:40 *Patricia Menéndez, Paul Eilers and Fred van Eeuwijk* – Penalised regression techniques for modeling relationships between metabolites and tomato taste attributes

10:40 – 11:00 *Abhishek Rathore et al.* - iMAS: A Unified Computing and Decision Support System for Marker-Aided Breeding

11:00 – 11:20 Coffee

SESSION 5: Developments in design – Chair: Pawel Krajewski

11:20 – 12:00 Invited lecture: *Brian Cullis* – Embedded partially replicated designs for grain quality testing

12:00 – 12:20 *Christine Hackett, Xinwei Chen and Robbie Waugh* - eQTL analysis using a two-colour microarray with a distant pair design

12:20 – 12:40 *Kristian Kristensen* – Incomplete split-plot designs based on α -designs: A compromise between traditional split-plot designs and randomised complete block design

12:40 – 13:40 Lunch

13:40 – 14:00 *David Butler and Brian Cullis* – On the optimal design of experiments with a known treatment covariance structure and spatial dependence

14:00 – 14:20 *David Marshall, Marco Bink and Thomas Schiex* – StatSeq : Statistical challenges on the 1000€ genome sequences in plants

14:20 – 15:00 Closing Talk: *Mike Kearsey* – What have the Biometricians ever done for us?

15:00 Close of conference

SATURDAY, SEPTEMBER 5

09:30 – 13:30 Optional tours available to the Angus Glens, including a visit to Edzell Castle Gardens, or to Fife, including a visit to Scotland's Secret Bunker.

Legend: Text in black – main programme details. Text in blue – social programme details.