

Papers for STAT 550 class, 2014

Papers already selected 2014: list complete

The duplicate (Carlson et al., 2004) is my fault, and therefore accepted.

Aaron Baraff:: Pritchard et al. (2000) – the first Stephens/Pritchard popn structure paper

Jun Hwang:: B.L.Browning and Browning (2013) – added paper on IBD detection from sequence data

Nan Jiang:: Carlson et al. (2004) – selecting SNPs for Association Analysis.

HoiYi Ng:: Scheet and Stephens (2006) – The FastPHASE paper

Brayan Ortiz:: Boehnke (1994) – paper on limits of resolution of linkage mapping

Karynne Patterson:: Abecasis et al. (2002) – the original Merlin paper.

Brenda Price:: Kong et al. (2002). With Kong et al. (2004) and Kong et al. (2010).

Johanna Robertson:: Abecasis et al. (2005) – Using LD in association mapping.

Xianbang Sun:: Browning and Thompson (2012) – use of IBD in population-based mapping.

Bowen Wang:: Anderson and Weir (2007) – estimating relationships in structured populations.

Wendy Wang:: Carlson et al. (2004) – selecting SNPs for Association Analysis.

Jane Zanzig:: Browning and Browning (2010) – detection of IBD segments in populations

Ju Zhang:: Schouten et al. (2005) – combines haplotyping with "pedigrees" – first solid study.

Papers available

This list is neither necessary nor sufficient. It is also still in process of updating.

Also, additions are welcome – if you have a particular area/paper you would like to choose, feel free to suggest.

The papers are listed first, somewhat sorted by category, on the following two pages. The references follow on the last three pages (approx.)

Please note: in a given course offering, no two students may choose the same paper. To be fair, I operate on a first-come first-served basis, although I have occasionally negotiated switches.

So if you have a particular choice you want, let me know right away.

I Population-related issues/studies, including haplotype phasing and imputation

Abecasis et al. (2005) – Using LD in association mapping.

Browning (2006) – a newer and better model for haplotype clustering

Browning and Browning (2007) – use of this model in imputation

Carlson et al. (2004) – selecting SNPs for Association Analysis.

Ceppellini et al. (1955) : the original “Gene counting” paper

Excoffier and Slatkin (1998) – haplotyping via EM

Pluzhnikov et al. (2002): Inference of human history and demography from genetic data.

Pritchard et al. (2000) – the first Stephens/Pritchard popn structure paper

Scheet and Stephens (2006) The FastPHASE paper

Schouten et al. (2005) – combines haplotyping with ”pedigrees” – first solid study.

Stephens and Donnelly (2003)– a comparison of alternative computational algorithms/models for phasing

Stephens et al. (2001) – Mathew Stephens original PHASE paper

II Gene ibd and use in sib pair analyses etc.

Anderson and Weir (2007) – estimating relationships in structured populations.

Blackwelder and Elston (1985) – classic paper on sib pair data.

Browning and Browning (2010) – detection of IBD segments in populations

B.L.Browning and Browning (2013) – IBD detection from sequence data

Browning and Thompson (2012) – use of IBD in population-based mapping.

Dudoit and Speed (2000) – a score test for linkage based on ibd in sib pairs

Karigl (1981) recursive probabilities computations for more general IBD patterns

Leutenegger et al. (2003) – estimating inbreeding coefficients from population data along chromosomes.

Sieberts et al. (2002) – Estimating relationships from trios of individuals.

Suarez et al. (1978) – formalization of sib pair linkage tests

Thompson (1974) – gene IBD for multiple individuals

III Linkage and Segregation Analysis

Abecasis et al. (2002) – the original Merlin paper.

Boehnke (1994) – paper on limits of resolution of linkage mapping

Elston and Stewart (1971): a fundamental paper in computing likelihoods on pedigrees.

Kong et al. (2002): variation in human recombination rates

With Kong et al. (2004) and Kong et al. (2010): Two follow-up papers on the same theme:

Lander and Botstein (1987): the basic “Homozygosity mapping” paper

Lander and Green (1987); The original “Mapmaker” paper, which laid methodological foundation for “Genehunter” programs.

Morton (1955) – the classic introduction of the base-10 (!!!) lod score

Ploughman and Boehnke (1989) – the basis of SIMLINK

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