

Publications
Matti Pirinen
14 - Jan - 2021

- H-index = 32 (Web of Science, 14-Jan-2021), 44 (Google Scholar, 14-Jan-2021)
- Citations = 8,224 (Web of Science, 14-Jan-2021), 13,654 (Google Scholar, 14-Jan-2021)
- * denotes equal contribution

A. Peer-reviewed scientific publications

A1. Original research publications

1. Mars N, Widén E, Kerminen S, Meretoja T, **Pirinen M**, della Briotta Parolo P, Palta P, Palotie A, Kaprio J, Joensuu H, Daly MJ, Ripatti S (2020):
The role of polygenic risk and susceptibility genes in breast cancer over the course of life.
Nature Communications 11: 6383.
2. Hassan S, Surakka I, Taskinen MR, Salomaa V, Palotie V, Wessman M, Tukiainen T, **Pirinen M**, Palta P, Ripatti S (2020):
High-resolution population-specific recombination rates and their effect on phasing and genotype imputation.
European Journal of Human Genetics <https://doi.org/10.1038/s41431-020-00768-8>
3. Weissbrod O, Hormozdiari F, Benner C, Cui R, Ulirsch J, Gazal S, Schoech AP, Van De Geijn B, Reshef Y, Márquez-Luna C, O'Connor L, **Pirinen M**, Finucane HK, Price AL (2020):
Functionally informed fine-mapping and polygenic localization of complex trait heritability.
Nature Genetics 52: 1355-1363.
4. Ruotsalainen SE, Partanen JJ, Cichonska A, Lin J, Benner C, Surakka I, Reeve MP, Palta P, Salmi M, Jalkanen S, Ahola-Olli A, Palotie A, Salomaa V, Daly MJ, **Pirinen M**, Ripatti S, Koskela J (2020):
An expanded analysis framework for multivariate GWAS connects inflammatory biomarkers to functional variants and disease.
European Journal of Human Genetics <https://doi.org/10.1038/s41431-020-00730-8>
5. Wahab A, Onkamo O, **Pirinen M**, Almangush A, Salo T (2020):
The budding and depth of invasion model in oral cancer: A systematic review and meta-analysis.
Oral Diseases <https://doi.org/10.1111/odi.13671>

6. Alabi RO, Mäkitie AA, **Pirinen M**, Elmusrati M, Leivo I, Almangush A (2020):
Comparison of nomogram with machine learning techniques for prediction of overall survival in patients with tongue cancer.
International Journal of Medical Informatics 145: 104313.
7. Gilchrist JJ, Uyoga S, **Pirinen M**, Rautanen A, Mwarumba S, Njuguna P, Mturi N, Hill AVS, Scott JAG, Williams TN (2020):
Risk of pneumococcal bacteremia in Kenyan children with glucose-6-phosphate dehydrogenase deficiency.
BMC Medicine 18: 148.
8. Almangush A, **Pirinen M**, Youssef O, Mäkitie AA, Leivo I (2020):
Risk stratification in oral squamous cell carcinoma using staging of the eighth American Joint Committee on Cancer: Systematic review and meta-analysis.
Head & Neck: Journal of the sciences in specialities of the head and neck 42: 3002-3017.
9. Buchwald J, Chenoweth MJ, Palviainen T, Zhu G, Benner C, Gordon S, Korhonen T, Ripatti S, Madden PAF, Lehtimäki T, Raitakari OT, Salomaa V, Rose RJ, George TP, Lerman C, **Pirinen M**, Martin NG, Kaprio J, Loukola A, Tyndale RF (2020):
Genome-wide association meta-analysis of nicotine metabolism and cigarette consumption measures in smokers of European descent.
Molecular Psychiatry <https://doi.org/10.1038/s41380-020-0702-z>
10. Ripatti P, Rämö JT, Mars NJ, Fu Y, Lin J, Söderlund S, Benner C, Surakka I, Kiiskinen T, Havulinna AS, Palta P, Freimer NB, Widén E, Salomaa V, Tukiainen T, **Pirinen M**, Palotie A, Taskinen MR, Ripatti S (2020):
Polygenic Hyperlipidemias and Coronary Artery Disease Risk.
Circulation: Genomic and Precision Medicine 13: e002725.
11. Lin J, Tabassum R, Ripatti S, **Pirinen M** (2020):
MetaPhat: Detecting and decomposing multivariate associations from univariate genome-wide association statistics.
Frontiers in Genetics 11: 431.
12. Ripatti P, Rämö JT, Söderlund S, Surakka S, Havulinna AS, Widén E, Palta P, Freimer NB, Salomaa V, **Pirinen M**, Palotie A, Taskinen MR, Ripatti S (2019):
Polygenic hyperlipidemia increases coronary artery disease risk In the UK Biobank.
Atherosclerosis 287: e92.
13. Locke AE, Steinberg KM, Chiang CWK, Service SK, Havulinna AS, Stell L, **Pirinen M**, Abel HJ, Chiang CC, Fulton RS, Jackson AU, Kang CJ, Kanchi KL, Koboldt DC, Larson DE, Nelson J, Nicholas TJ, Pietilä A, Ramensky V, Ray D, Scott LJ, Stringham HM, Vangipurapu J, Welch R, Yajnik P, Yin X, Eriksson JG, Ala-Korpela M, Järvelin M, Männikkö M, Laivuori H, FinnGen Project, Dutcher SK, Stitzel NO, Wilson RK, Hall IM, Sabatti C, Palotie A, Salomaa V, Laakso M, Ripatti S, MB, Freimer NB (2019):
Exome sequencing of Finnish isolates enhances rare-variant association power.
Nature 575: 323-327.

14. Almahmoudi R, Kasanen M, Sieviläinen M, Salem A, **Pirinen M**, Salo T, Al-Samadi A (2019):
Prognostic value of blood and lymphatic vessel markers in tongue cancer: A systematic review.
Cancer Science: 110: 3424-3433.
15. Tabassum R, Rämö JT, Ripatti P, Koskela JT, Kurki M, Karjalainen J, Palta P, Hassan S, Nunez-Fontarnau J, Kiiskinen TTJ, Söderlund S, Matikainen N, Gerl MJ, Surma MA, Klose C, Stitzel NO, Laivuori H, Havulinna AS, Service SK, Salomaa V, **Pirinen M**, FinnGen Project, Jauhiainen M, Daly MJ, Freimer NB, Palotie A, Taskinen MR, Simons K, Ripatti A (2019):
Genetic architecture of human plasma lipidome and its link to cardiovascular disease.
Nature Communications 10: 4329.
16. Sieviläinen M, Almahmoudi R, Al-Samadi A, Salo T, **Pirinen M**, Almagush A (2019):
The prognostic value of immune checkpoints in oral squamous cell carcinoma.
Oral Diseases. 25: 1435 – 1445.
17. Rämö JT, Ripatti P, Tabassum R, Söderlund S, Matikainen N, Gerl MJ, Klose C, Surma MA, Stitzel NO, Havulinna AS, **Pirinen M**, Salomaa V, Freimer NB, Jauhiainen M, Palotie A, Taskinen MR, Simons K, Ripatti S (2019):
Coronary Artery Disease Risk and Lipidomic Profiles Are Similar in Hyperlipidemias With Family History and Population-Ascertained Hyperlipidemias.
Journal of the American Heart Association, 8: e012415.
18. Kerminen S, Martin AR, Koskela J, Ruotsalainen SE, Havulinna AS, Surakka I, Palotie A, Perola M, Salomaa V, Daly MJ, Ripatti S, **Pirinen M** (2019):
Geographic Variation and Bias in the Polygenic Scores of Complex Diseases and Traits in Finland.
American Journal of Human Genetics, 104: 1169-1181.
19. Trochet H*, **Pirinen M***, Band G, Jostins L, McVean G, Spencer CCA (2019):
Bayesian meta-analysis across genome-wide association studies of diverse phenotypes.
Genetic Epidemiology, 43: 532-547.
20. Mars NJ, Kerola AM, Kauppi MJ, **Pirinen M**, Elonheimo O, Sokka-Isler T (2019):
Patients with rheumatic diseases share similar patterns of healthcare resource utilization.
Scandinavian Journal of Rheumatology, 48: 300-307.
21. Kurki MI, Saarentaus E, Pietiläinen O, Gormley P, Lal D, Kerminen S, Torniainen-Holm M, Hämäläinen E, Rahikkala E, Keski-Filppula E, Rauhala M, Korpi-Heikkilä S, Komulainen–Ebrahim J, Helander H, Vieira P, Männikkö M, Peltonen M, Havulinna AS, Salomaa V, **Pirinen M**, Suvisaari J, Moilanen JS, Körkkö J, Kuismin O, Daly MJ, Palotie A (2019):
Contribution of rare and common variants to intellectual disability in a sub-isolate of Northern Finland
Nature Communications 10: 410.

22. Almagush A, Youssef O, **Pirinen M**, Sundström J, Leivo I, Mäkitie A (2019):
Does evaluation of tumour budding in diagnostic biopsies have a clinical relevance? A systematic review.
Histopathology 74: 536-544.
23. Mars NJ, Kerola AM, Kauppi MJ, **Pirinen M**, Elonheimo O, Sokka-Isler T (2019):
Healthcare costs and outcomes in adult patients with juvenile idiopathic arthritis: a population-based study.
Scandinavian Journal of Rheumatology 48: 114-120.
24. Martin AR, Karczewski KJ, Kerminen S, Kurki MI, Sarin AP, Artomov M, Eriksson JG, Esko T, Genovese G, Havulinna AS, Kaprio J, Konradi A, Korányi L, Kostareva A, Männikkö M, Metspalu A, Perola M, Prasad RB, Raitakari O, Rotar O, Salomaa V, Groop L, Palotie A, Neale BM, Ripatti S, **Pirinen M**, Daly MJ (2018):
Haplotype Sharing Provides Insights into Fine-Scale Population History and Disease in Finland.
American Journal of Human Genetics 102: 760-775.
25. Rivas MA, Avila BE, Koskela J, Huang H, Stevens C, **Pirinen M**, Haritunians T, Neale BM, Kurki M, Ganna A, Graham D, Glaser B, Peter I, Atzmon G, Barzilai N, Levine AP, Schiff E, Pontikos N, Weisburd B, Lek M, Karczewski KJ, Bloom J, Minikel EV, Petersen BS, Beaugerie L, Seksik P, Cosnes J, Schreiber S, Bokemeyer B, Bethge J, International IBD Genetics Consortium, NIDDK IBD Genetics Consortium, T2D-GENES Consortium, Heap G, Ahmad T, Plagnol V, Segal AW, Targan S, Turner D, Saavalainen P, Farkkila M, Kontula K, Palotie A, Brant SR, Duerr RH, Silverberg MS, Rioux JD, Weersma RK, Franke A, Jostins L, Anderson CA, Barrett JC, MacArthur DG, Jalas C, Sokol H, Xavier RJ, Pulver A, Cho JH, McGovern DPB, Daly MJ (2018):
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26. Gilchrist JJ, Mentzer AJ, Rautanen A, **Pirinen M**, Mwarumba S, Njuguna P, Mturi N, Williams TN, Scott JAG, Hill AVS (2018):
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Proceedings of the National Academy of Sciences of the United States of America 115: E3601-E3603.
27. Gilchrist JJ, Rautanen A, Fairfax BP, Mills TC, Naranbhai V, Trochet H, **Pirinen M**, Muthumbi E, Mwarumba S, Njuguna P, Mturi N, Msefula CL, Gondwe EN, MacLennan JM, Chapman SJ, Molyneux ME, Knight JC, Spencer CCA, Williams TN, MacLennan CA, Scott JAG, Hill AVS (2018):
Risk of nontyphoidal Salmonella bacteraemia in African children is modified by STAT4.
Nature Communications 9: 1014.
28. Almagush A, **Pirinen M**, Heikkinen I, Mäkitie AA, Salo T, Leivo I (2018):
Tumour budding in oral squamous cell carcinoma: a meta-analysis.
British Journal of Cancer 118: 577-586.

29. Benner C, Havulinna AS, Jarvelin MR, Salomaa V, Ripatti S, **Pirinen M (2017)**:
Prospects of Fine-Mapping Trait-Associated Genomic Regions by Using Summary Statistics from Genome-wide Association Studies.
American Journal of Human Genetics 101: 539-551.
30. Kerminen S, Havulinna AS, Hellenthal G, Martin AR, Sarin AP, Perola M, Palotie A, Salomaa V, Daly MJ, Ripatti S, **Pirinen M (2017)**:
Fine-Scale Genetic Structure in Finland.
G3-Genes Genomes Genetics 7: 3459-3468.
31. **Pirinen M**, Benner C, Marttinen P, Jarvelin MR, Rivas MA, Ripatti S (2017):
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Bioinformatics 33: 2405-2407.
32. Chheda H, Palta P, **Pirinen M**, McCarthy S, Walter K, Koskinen S, Salomaa V, Daly M, Durbin R, Palotie A, Aittokallio T, Ripatti S (2017):
Whole-genome view of the consequences of a population bottleneck using 2926 genome sequences from Finland and United Kingdom.
European Journal of Human Genetics 25: 477-484.
33. Wang L, Ko ER, Gilchrist JJ, Pittman KJ, Rautanen A, **Pirinen M**, Thompson JW, Dubois LG, Langley RJ, Jaslow SL, Salinas RE, Rouse DC, Moseley MA, Mwarumba S, Njuguna P, Mturi N, Williams TN, Scott JAG, Hill AVS, Woods CW, Ginsburg GS, Tsalik EL, Ko DC (2017):
Human genetic and metabolite variation reveals that methylthioadenosine is a prognostic biomarker and an inflammatory regulator in sepsis.
Science Advances 3: e1602096.
34. Tikkanen E, **Pirinen M**, Sarin AP, Havulinna AS, Männistö S, Saltevo J, Lokki ML, Sinisalo J, Lundqvist A, Jula A, Salomaa V, Ripatti S (2016):
Genetic support for the causal role of insulin in coronary heart disease.
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35. Gillberg J, Marttinen P, **Pirinen M**, Kangas AJ, Soininen P, Ali M, Havulinna AS, Jarvelin MR, Ala-Korpela M, Kaski S (2016):
Multiple output regression with latent noise.
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36. Sieberts SK*, Zhu F*, García-García J*, Stahl E, Pratap A, Pandey G, Pappas D, Aguilar D, Anton B, Bonet J, Eksi R, Fornés O, Guney E, Li H, Marín MA, Panwar B, Planas-Iglesias J, Poglayen D, Cui J, Falcao AO, Suver C, Hoff B, Balagurusamy VSK, Dillenberger D, Neto EC, Norman T, Aittokallio T, Ammad-ud-din M, Azencott CA, Bellón V, Boeva V, Bunte K, Chheda H, Cheng L, Corander J, Dumontier M, Goldenberg A, Gopalacharyulu P, Hajiloo M, Hidru D, Jaiswal A, Kaski S, Khalfaoui B, Khan SA, Kramer ER, Marttinen P, Mezlini AM, Molparia B, **Pirinen M** et al. (2016):
Crowdsourced assessment of common genetic contribution to predicting anti-TNF treatment response in rheumatoid arthritis.
Nature Communications 7: 12460.

37. Rautanen A*, **Pirinen M***, Mills TC, Rockett KA, Strange A, Ndungu AW, Naranbhai V, Gilchrist JJ, Bellenguez C, Freeman C, Band G, Bumpstead SJ, Edkins S, Giannoulatou E, Gray E, Dronov S, Hunt SE, Langford C, Pearson RD, Su Z, Vukcevic D, Macharia AW, Uyoga S, Ndila C, Mturi N, Njuguna P, Mohammed S, Berkley JA, Mwangi I, Mwarumba S, Kitsao BS, Lowe BS, Morpeth SC, Khandwalla I; Kilifi Bacteraemia Surveillance Group, Blackwell JM, Bramon E, Brown MA, Casas JP, Corvin A, Duncanson A, Jankowski J, Markus HS, Mathew CG, Palmer CN, Plomin R, Sawcer SJ, Trembath RC, Viswanathan AC, Wood NW, Deloukas P, Peltonen L, Williams TN, Scott JA, Chapman SJ, Donnelly P, Hill AV, Spencer CC (2016): *Polymorphism in a lincRNA associates with a doubled risk of Pneumococcal Bacteremia in Kenyan children.*
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PLoS Genetics 12: e1006078.
39. Kettunen J, Demirkan A, Würtz P, Draisma HHM, Haller T, Rawal R, Vaarhorst A, Kangas AJ, Lyytikäinen LP, **Pirinen M**, Pool R, Sarin AP, Soininen P, Tukiainen T, Wang Q, Taininen M, Tynkkynen T, Amin N, Zeller T, Beekman M, Deelen J, van Dijk KW, Esko T, Hottenga JJ, van Leeuwen EM, Lehtimäki T, Mihailov E, Rose RJ, de Craen AJM, Gieger C, Kähönen M, Perola M, Blankenberg S, Savolainen MJ, Verhoeven A, Viikari J, Willemsen G, Boomsma DI, van Duijn CM, Eriksson J, Jula A, Järvelin MR, Kaprio J, Metspalu A, Raitakari O, Salomaa V, Slagboom PE, Waldenberger M, Ripatti S, Ala-Korpela M (2016): *Genome-wide study for circulating metabolites identifies 62 loci and reveals novel systemic effects of LPA.*
Nature Communications 7:11122.
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Bustamante CD, Li JB, Daly MJ, Guigo R, Donnelly P, Ardlie K, Sammeth M, Dermitzakis E, McCarthy MI, Montgomery SB, Lappalainen T, MacArthur DG (2015): *Impact of predicted protein-truncating genetic variants on the human transcriptome.* **Science** 348: 666-669.

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48. Rockett KA, Clark GM - 69 authors – **Pirinen M** et al. (2014): *Reappraisal of known malaria resistance loci in a large multi-centre study.* **Nature Genetics** 46: 1197-1204.
49. Davis O*, Band G*, **Pirinen M***, Haworth CM, Meaburn EL, Kovas Y, et al. (2014): *The correlation between reading and mathematics ability at age twelve has a substantial genetic component.* **Nature Communications** 5:4204.

50. Marttinen P, **Pirinen M**, Sarin AP, Gillberg J, Kettunen J, Surakka I, Kangas AJ, Soinen P, O'Reilly P, Kaakinen M, Kähönen M, Lehtimäki T, Ala-Korpela M, Raitakari OT, Salomaa V, Järvelin MR, Ripatti S, Kaski S. (2014):
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B. Non-peer-reviewed scientific writings

G. Theses

G2. Master's Thesis

Analyttisten ja koanalyttisten ekvivalenssirelaatioiden ekvivalenssiluokkien lukumäärästä. (On the Number of Equivalence Classes of Analytic and Coanalytic Equivalence Relations in Polish Spaces.)

Master's Thesis in Mathematical logic, University of Helsinki, 2004.

G5. PhD Thesis

Bayesian Inference for Retrospective Population Genetics Models using Markov Chain Monte Carlo Methods.

Ph.D. Thesis in Statistics, University of Helsinki, 2009.

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