

Publication List

Eran Halperin's lab

Updated to : September 29, 2020.

Journal papers:

1. Goodman-Meza D, Rudas A, Chiang JN, Adamson PC, Ebinger J, Sun N, Botting P, Fulcher JA, Saab FG, Brook R, Eskin E, An U, Kordi M, Jew B, Balliu B, Chen Z, Hill BL, Rahmani E, Halperin E, Manuel V. *A machine learning algorithm to increase COVID-19 inpatient diagnostic capacity*. **PLoS One**. 2020 Sep 22;15(9):e0239474. doi: 10.1371/journal.pone.0239474. PMID: 32960917.
2. Miao Z, Alvarez M, Ko A, Bhagat Y, Rahmani E, Jew B, Heinonen S, Muñoz-Hernandez LL, Herrera-Hernandez M, Aguilar-Salinas C, Tusie-Luna T, Mohlke KL, Laakso M, Pietiläinen KH, Halperin E, Pajukanta P. *The causal effect of obesity on prediabetes and insulin resistance reveals the important role of adipose tissue in insulin resistance*. **PLoS Genetics** 2020 Sep 14;16(9):e1009018. doi: 10.1371/journal.pgen.1009018. PMID: 32925908.
3. Martino C, Shenhav L, Marotz CA, Armstrong G, McDonald D, Vázquez-Baeza Y, Morton JT, Jiang L, Dominguez-Bello MG, Swafford AD, Halperin E, Knight R. *Context-aware dimensionality reduction deconvolutes gut microbial community dynamics*. **Nature Biotechnology**. 2020 Aug 31. doi: 10.1038/s41587-020-0660-7. Epub ahead of print. PMID: 32868914.
4. Alvarez M, Rahmani E, Jew B, Garske KM, Miao Z, Benhammou JN, Ye CJ, Pisegna JR, Pietiläinen KH, Halperin E, Pajukanta P. *Enhancing droplet-based single-nucleus RNA-seq resolution using the semi-supervised machine learning classifier DIEM*. **Scientific reports**. 2020 Jul 3;10(1):11019. doi: 10.1038/s41598-020-67513-5. PMID: 32620816; PMCID: PMC7335186.
5. Mandric I, Hill BL, Freund MK, Thompson M, Halperin E. *BATMAN: Fast and Accurate Integration of Single-Cell RNA-Seq Datasets via Minimum-Weight Matching*. **iScience**. 2020 Jun 26;23(6):101185. doi: 10.1016/j.isci.2020.101185. Epub 2020 May 20. PMID: 32504875; PMCID: PMC7276436.
6. Agrawal A, Chiu AM, Le M, Halperin E, Sankararaman S. *Scalable probabilistic PCA for large-scale genetic variation data*. **PLoS Genetics** 2020 May 29;16(5):e1008773. doi: 10.1371/journal.pgen.1008773. PMID: 32469896; PMCID: PMC7286535.
7. Joseph TA, Shenhav L, Xavier JB, Halperin E, Pe'er I. *Compositional Lotka-Volterra describes microbial dynamics in the simplex*. **PLoS Computational Biology** 2020 May 29;16(5):e1007917. doi: 10.1371/journal.pcbi.1007917. PMID: 32469867; PMCID: PMC7325845.
8. Jew B, Alvarez M, Rahmani E, Miao Z, Ko A, Garske KM, Sul JH, Pietiläinen KH, Pajukanta P, Halperin E. *Accurate estimation of cell composition in bulk expression through robust integration of single-cell information*. **Nature Communications** 2020 Apr 24;11(1):1971. doi: 10.1038/s41467-020-15816-6. Erratum in: *Nat Commun*. 2020 Jun 3;11(1):2891. PMID: 32332754; PMCID: PMC7181686.

9. Furman O, Shenhav L, Sasson G, Kokou F, Honig H, Jacoby S, Hertz T, Cordero OX, Halperin E, Mizrahi I. *Stochasticity constrained by deterministic effects of diet and age drive rumen microbiome assembly dynamics*. **Nature Communications**. 2020 Apr 20;11(1):1904. doi: 10.1038/s41467-020-15652-8. PMID: 32312972; PMCID: PMC7170844.
10. Grunin M, Beykin G, Rahmani E, Schweiger R, Barel G, Hagbi-Levi S, Elbaz-Hayoun S, Rinsky B, Ganiel M, Carmi S, Halperin E, Chowers I. *Association of a Variant in VWA3A with Response to Anti-Vascular Endothelial Growth Factor Treatment in Neovascular AMD*. **investigative ophthalmology & visual science** 2020 Feb 7;61(2):48. doi: 10.1167/iovs.61.2.48. PMID: 32106291; PMCID: PMC7329947.
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19. Wallace, R. John, Goor Sasson, Philip C. Garnsworthy, Ilma Tapio, Emma Gregson, Paolo Bani, Pekka Huhtanen et al. *A heritable subset of the core rumen microbiome dictates dairy cow productivity and emissions.*, **Science advances** 5, no. 7 (2019): eaav8391.

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- Michael A. LeNoir, Kirsten Bibbins-Domingo, Esteban G. Burchard and Eran Halperin, *The Effects of Migration and Assortative Mating on Admixture Linkage Disequilibrium*, **Genetics**, 205.1 (2017): 375-383.
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* Equal contribution
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