


gokul gowri

 ggowri@g.harvard.edu

 github.com/ggdna

education

Ph. D. in progress, Systems, Synthetic, and Quantitative Biology, Harvard, 2020 - present.
advised by Peng Yin

topics: mutual information; single cell analysis; DNA sequence design

B.S. Bioengineering, Caltech, 2020.

advised by Lulu Qian and Erik Winfree

topics: reversible computing; molecular programming

papers

Approximating mutual information of high-dimensional variables using learned representations

NeurIPS, 2024,  **spotlight**  (top ~ 3% submission)

Gowri, G., Lun, XK., Klein, A., & Yin, P. [co-corresponding]

Signal amplification by cyclic primer extension enables high-sensitivity single-cell mass cytometry analysis

Nature Biotechnology, 2024.

Lun, XK., Sheng, K., Yu, X., Lam, CY., **Gowri, G.**, Zhai, Y., Kim, Y., Jackson, HW., Ingber, D., Yaffe, M., & Yin, P.

Scalable design of orthogonal DNA barcode libraries

Nature Computational Science, 2024.

Gowri, G., Sheng, K., & Yin, P. [co-corresponding]

Multi-micron crisscross structures from combinatorially assembled DNA origami slats

Nature Nanotechnology, 2023.

Wintersinger, C. M., Mineev, D., Ershova, A., Sasaki, H., **Gowri, G.**, Berengut, J., Corea-Dilbert, F. E., Yin, P., & Shih, W.

Interpretable visualization of single cell data using Janus autoencoders

Learning Meaningful Representations of Life Workshop at NeurIPS, 2022.

Gowri, G., Richter, P., Lun, X., & Yin, P.

Reversible computation using swap reactions on a surface

Lecture Notes in Computer Science, DNA25 proceedings, 2019.

Brailovskaya, T.*, **Gowri, G.***, Yu, S.*, & Winfree, E. [contributed equally *]

Combined amplification and molecular classification for gene expression diagnostics

Lecture Notes in Computer Science, DNA25 proceedings, 2019.

Gowri, G., Lopez, R., & Seelig, G.

teaching

Teaching Fellow, Integrated Science (statistical mechanics and animal development), Harvard, 2022.

Facilitator, Equity Workshops for SSQBio PhD program, Harvard, 2021-2023.

Teaching Assistant, Biomolecular Computation, Caltech, 2019.

software

latentmi: mutual information estimation in high dimensions. `pip install latentmi`

seqwalk: tool for designing orthogonal DNA sequence libraries. `pip install seqwalk`

honors

Goldwater Scholar, 2019.