

## Egor Lappo

Ph.D. Student in Biology, admitted Autumn 2022

### Publications

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#### PUBLICATIONS

- **Beneficial reversal of dominance maintains a large-effect resistance polymorphism under fluctuating insecticide selection.** *Nature ecology & evolution*  
Karageorgi, M., Lyulina, A. S., Bitter, M. C., Lappo, E., Greenblum, S. I., Mouza, Z. K., Tran, C. T., Huynh, A. V., Oken, H., Schmidt, P., Petrov, D. A.  
2025
- **Coalescent theory of the  $\psi$  directionality index.** *G3 (Bethesda, Md.)*  
Lappo, E., Rosenberg, N. A.  
2025
- **Coalescent theory of the  $\psi$  directionality index.** *bioRxiv : the preprint server for biology*  
Lappo, E., Rosenberg, N. A.  
2025
- **Dominance reversal maintains large-effect resistance polymorphism in temporally varying environments.** *bioRxiv : the preprint server for biology*  
Karageorgi, M., Lyulina, A. S., Bitter, M. C., Lappo, E., Greenblum, S. I., Mouza, Z. K., Tran, C. T., Huynh, A. V., Oken, H., Schmidt, P., Petrov, D. A.  
2025
- **Continuously fluctuating selection reveals fine granularity of adaptation.** *Nature*  
Bitter, M. C., Berardi, S., Oken, H., Huynh, A., Lappo, E., Schmidt, P., Petrov, D. A.  
2024
- **Solving the Arizona search problem by imputation.** *iScience*  
Lappo, E., Rosenberg, N. A.  
2024; 27 (2): 108831
- **A lattice structure for ancestral configurations arising from the relationship between gene trees and species trees.** *Discrete applied mathematics (Amsterdam, Netherlands : 1988)*  
Lappo, E., Rosenberg, N. A.  
2024; 343: 65-81
- **Cultural transmission of move choice in chess.** *Proceedings. Biological sciences*  
Lappo, E., Rosenberg, N. A., Feldman, M. W.  
2023; 290 (2011): 20231634
- **Concordance of spatial graphs** *CANADIAN MATHEMATICAL BULLETIN-BULLETIN CANADIEN DE MATHEMATIQUES*  
Lappo, E.  
2023; 66 (4): 1091-1108
- **Conformity and anti-conformity in a finite population.** *Journal of theoretical biology*  
Lappo, E., Denton, K. K., Feldman, M. W.  
2023: 111429
- **Approximations to the expectations and variances of ratios of tree properties under the coalescent.** *G3 (Bethesda, Md.)*  
Lappo, E., Rosenberg, N. A.  
2022

- **A compendium of covariances and correlation coefficients of coalescent tree properties.** *Theoretical population biology*  
Alimpiev, E., Rosenberg, N. A.  
2021
- **Enumeration of coalescent histories for caterpillar species trees and p-pseudocaterpillar gene trees.** *Advances in applied mathematics*  
Alimpiev, E., Rosenberg, N. A.  
2021; 131