

Biographical Sketch
Daniel Runcie

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(a) Professional Preparation:

Williams College	Biology	B.A.,	2005
Duke University	Biology	Ph.D.	2012
Duke University	Statistics	M.S.	2012
University of California Davis	NSF Postdoctoral Fellow in Biology		2013-2014

(b) Appointments:

2015-present Assistant Professor in Plant Sciences, University of California Davis
2013-2014 NSF Postdoctoral Fellow in Biology, University of California Davis

(c) Products:

(i) Five most closely related publications:

- Burghardt, L., Runcie, D. E., Wilczek, A., Cooper, M., Roe, J., Welch, S. M., Schmitt, J. (2015). Fluctuating warm temperatures decrease the effect of a key floral repressor on flowering time in *Arabidopsis thaliana*. *New Phytologist*.
<http://dx.doi.org/10.1111/nph.13799>
- Donohue, K., Burghardt, L. T., Runcie, D. E., Bradford, K. J., & Schmitt, J. (2014). Applying developmental threshold models to evolutionary ecology. *Trends in Ecology & Evolution*. [http://www.cell.com/trends/ecology-evolution/abstract/S0169-5347\(14\)00250-X](http://www.cell.com/trends/ecology-evolution/abstract/S0169-5347(14)00250-X)
- Garfield, D. A., Runcie, D. E., Babbitt, C. C., Haygood, R., Nielsen, W. J. and G. A. Wray. Evolvability and Robustness in a Developmental Gene Regulatory Network. *PloS Biology*. 11(10) e1001696EP–.
<http://dx.doi.org/10.1371%2Fjournal.pbio.1001696>
- Runcie, D. E., and Mukherjee, S. 2013. Dissecting High-Dimensional Phenotypes with Bayesian Sparse Factor Analysis of Genetic Covariance Matrices. *Genetics*, 194, 753-767. <http://www.genetics.org/cgi/doi/10.1534/genetics.113.151217>
- Runcie, D. E., Garfield, D. A., Wygoda, J. A., Mukherjee, S. and G. A. Wray. 2012. Genetics of gene expression responses to temperature stress in a sea urchin gene network. *Mol Ecol*, 21, 4547-4562. <http://dx.doi.org/10.1111/j.1365-294X.2012.05717.x>

(ii) Other significant publications

- Runcie D. E., Wiedmann, R., Archie, E. A., Altmann, J., Wray, G. A., Alberts, S. C., and J. Tung. 2013. Social environment influences the relationship between genotype and gene expression in wild baboons. *Philos T Roy Soc B*, 368, 20120345-20120345. <http://rstb.royalsocietypublishing.org/cgi/doi/10.1098/rstb.2012.0345>
- Runcie, D. E. and M. A. F. Noor. 2009. Sequence signatures of a recent chromosomal rearrangement in *Drosophila mojavensis*. *Genetica*. 136 (1) pp. 5-11.
<http://dx.doi.org/10.1111/j.1365-294X.2012.05717.x>

(iii) Synergistic activities

i. Software Development: Bayesian Sparse Factor Analysis of Genetic Covariance Matrices (BSFG) package implemented in MATLAB:

<http://www.stat.duke.edu/~sayan/bfgr/>

ii. Reviewer: Journals: The Plant Cell, Evolutionary Ecology, Evolution and Development, Journal of Experimental Zoology Part A, Annals of Applied Statistics, New Phytologist, Nature Communications, European Conference on Computational Biology 2014, BMC Plant Biology, Plant Physiology, Molecular Ecology, Functional Ecology.

Grants: Netherlands Organization for Scientific Research

iii. Workshop instruction: 3rd Annual Duke Systems Biology Symposium on Epistasis (2008)

iv. Mentoring: Mentored six graduate students in rotation projects. Mentored two undergraduate students in independent research projects, including one in UC Davis-Howard University Ecology and Evolution Graduate Admissions Pathways program.

v. Teaching: PLS205: Design and Analysis of Experiments at UC Davis. Teaching assistant for Cell and Development, General Microbiology, Animal Physiology, Duke University