

## Curriculum Vitae

Jeremy L. England, Ph.D.

### Education and Training

|                      |                      |                                     |
|----------------------|----------------------|-------------------------------------|
| Harvard University   | Biochemical sciences | A. B. <i>summa cum laude</i> , 2003 |
| University of Oxford | Physics              | doctoral student, 2003-2005         |
| Stanford University  | Physics              | Ph.D., 2009                         |
| Princeton University | Biophysics           | independent fellow, 2009-2011       |

### Research and Professional Experience

*Massachusetts Institute of Technology*  
Assistant Professor, Department of Physics Fall 2011-present

*Princeton University*  
Lecturer, Department of Physics 2009-2011

### Awards and Honors

Thomas D. and Virginia W. Cabot Career Development Professorship (MIT, 2014)  
Associate fellowship at the Princeton Center for Theoretical Science (Princeton, 2009)  
Lewis-Sigler Theory Fellowship (Princeton, 2009)  
Hoopes Senior Thesis Prize (Harvard, 2003)  
Hertz Foundation Graduate Fellowship (2003)  
Rhodes Scholarship (2002)  
Junior election to Phi Beta Kappa (2002)  
Barry M. Goldwater Scholarship (2002)

### Publications (PDFs available at <http://www.englandlab.com/publications.html>)

Perunov, N. and England, J. L. "Quantitative Theory of Hydrophobic Effect as a Driving Force of Protein Structure." *Protein Science*, 23, 387 (2014).

England, J. L. "Statistical physics of self-replication." *Journal of Chemical Physics*, 139, 121923 (2013).

Spokoini, R., Moldavski O., Nahmias Y., England, J. L., Schuldiner M., and Kaganovich, D. "Confinement to Organelle-Associated Inclusion Structures Mediates Asymmetric Inheritance of Aggregated Proteins in Budding Yeast." *Cell Reports*, 2, 738 (2012).

England, J. L. "Allostery in protein domains reflects a balance of steric and hydrophobic effects." *Structure* (Cell press), 19, 967 (2011).

England, J. L. and Kaganovich, D. "Polyglutamine shows a urea-like affinity for unfolded protein." *FEBS Lett.*, 585, 381 (2011).

England, J. L. and Pande, V. S., "Charge, hydrophobicity, and confined water: putting past simulations into a simple theoretical framework" *Biochemistry and Cell Biology*, 88, 359 (2010).

England, J. L., Lucent, D., and Pande, V. S., "A Role for Confined Water in Chaperonin Function." *Journal of the American Chemical Society*. 130, 11838 (2008).

England, J. L., Pande, V. S., and Haran, G. "Chemical Denaturants Inhibit the Onset of Dewetting." *Journal of the American Chemical Society*, 130, 11854 (2008).

England, J. L. and Pande, V. S., "Potential for modulation of the hydrophobic effect inside chaperonins." *Biophysical Journal*. 95, 3391 (2008).

England, J. L., Park, S., and Pande, V. S., "Theory for an order-driven disruption of the liquid state in water." *Journal of Chemical Physics*. 128, 044503 (2008).

England, J. L. and Cardy, J., "Morphogen gradient from a noisy source." *Physical Review Letters*. 94, 078101 (2005).

England, J. L., Shakhnovich, B., and Shakhnovich, E., "Natural selection of more designable folds: A mechanism for thermophilic adaptation." *Proceedings of the National Academy of Sciences*. 100,15 (2003).

England, J. L. and Shakhnovich, E. I., "Structural Determinant of Protein Designability." *Physical Review Letters*. 90, 21 (2003).

### Invited Talks

|             |  |
|-------------|--|
| Winter 2015 | UC Berkeley, Stanford                          |
| Fall 2014   | Karolinska Institute, ASU, Perimeter Institute |
| Summer 2014 | Harvard  |
| Spring 2014 | Simons Foundation                              |
| Winter 2014 | Wellesley                                      |
| Fall 2013   | Oxford, Harvard                                |
| Summer 2013 | Telluride, Harvard, Diffeo Inc.                |
| Spring 2013 | Cornell, UTSW-Dallas, Caltech                  |
| Winter 2013 | Israeli Chemical Society                       |
| Fall 2012   | Princeton, U. Penn                             |
| Summer 2012 | Hebrew University in Jerusalem                 |
| Spring 2012 | Harvard  |
| Fall 2011   | Brandeis, BU                                   |
| Summer 2011 | NIH  |
| Spring 2011 | Vertex Pharma. Inc., UC-Berkeley, Stanford     |

### Press

*Quanta Magazine*

<https://www.simonsfoundation.org/quanta/20140122-a-new-physics-theory-of-life/>

*Boston Museum of Science Podcast: The Physics of Evolution*

<http://www.mos.org/node/1638205>

*Nature News*

<http://www.nature.com/news/bacteria-replicate-close-to-the-physical-limit-of-efficiency-1.11446>

*Boston Museum of Science Podcast: Shape-shifting Proteins*

<http://www.youtube.com/watch?v=QRXrV3C7gwk>

*Forbes Magazine's "30 under 30 Rising Stars in Science."*

<http://www.forbes.com/sites/matthewherper/2011/12/19/rising-stars-of-sciencethe-forbes-30-under-30/>