

# Junior Papers

## Fall 2001, Class of 2003

<b>Name</b>	<b>Title</b>	<b>Advisor</b>	<b>2<sup>nd</sup> Reader</b>
Bontas, Costin	Quantum Field Theory in Curved Space-Time: Particle Creation in de Sitter Space	H. Verlinde	E. Verlinde
Collman, Forrest	Circles on Spheres - Analysis of $\pi^0$ Background in BooNE	P. Meyers	C. Tully
Erickcek, Adrienne	Inflationary Gravitational Waves and the Polarization of the Cosmic Microwave Background	S. Staggs	P. Steinhardt
Gratzer, Allison	Mechanical Responses of the Neuron during Excitation and Models of the Neuron	S. Staggs	W. Bialek
Grin, Daniel	<u>Finding Lyman Limit Systems in the Spectra of High Redshift SDSS QSOs</u>	M. Strauss (AST)	E. Groth
Harkleroad, Eric	Physics of Protein Folding	W. Bialek	R. Austin
Hwang, Eileen	Mechanics of E. Coli Movement	W. Bialek	L. Sohn
Jackson, Thomas	Stress Propagation in Granular Media	P. Chaikin	S. Sondhi
Kealhofer, Catherine	Reconstructing Evolutionary Trees from DNA Sequences	W. Bialek	R. Austin
Kermish, Zigmund	Quasi-elastic Scattering of $\nu_\mu$ off Carbon Nuclei: A Comparison of Fermi Motion Models for the MiniBooNE Experiment	P. Meyers	A. Bazarko
Lippincott, Hugh	Radio Waves in the Ionosphere	D. Marlow	D. Wilkinson
Mannion, John	A Study of Meinhardt Reaction Diffusion Equations and Their Application to fruiting bodies in Polysphondylium Pallidum	E. Cox (MOL)	W. Bialek
O'Rourke, Sean	Numerical Solutions of the AC Stark Effect	M. Littman (MAE)	W. Happer
Saunders, John	Two Models of Axon Behavior	W. Bialek	L. Page
Yang, Ray	The Prospect for Photonic Quasicrystals	P. Steinhardt	P. Chaikin