

# The Second Annual Student Summer Research Symposium

August 17, 2004  
9:30 a.m. – 4:00 p.m.  
Ewing Hall Room 209

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**9:30 a.m. – 9:35 a.m.**

**Introduction**

Continental Breakfast

Welcome *John A. Pelesko*

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**9:35 a.m. – 9:55 a.m.**

**Void Fractions in Random Packing: Part One**

Speaker *Janine Janoski*

Advisor *J. A. Pelesko*

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**9:55 a.m. – 10:15 a.m.**

**Void Fractions in Random Packing: Part Two**

Speaker *Lauren Rossi*

Advisor *J. A. Pelesko*

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**10:15 a.m. – 10:35 a.m.**

**Learning from Ant Colonies: Global  
Optimization from Local Behavior**

Speaker *Katie Johnson*

Advisor *L. Rossi*

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**10:35 a.m. – 10:50 a.m.**

**Coffee Break**

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**10:50 a.m. – 11:10 a.m.**

**Quantum Field Theory in an Accelerating  
Universe**

Speaker *Patrick Zulkowski*

Advisor *P. Broadbridge*

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**11:10 a.m. – 11:30 a.m.**

**Investigating the Effects of Solubility and  
Structural Integrity on Shear-Thickening and  
Pattern Displaying Behavior of Cornstarch**

Speaker *Hudaa Neetoo*

Advisor *C. Davies*

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**11:30 a.m. – 11:50 a.m.**

**Mathematical Models of Water Uptake by  
Rice**

Speaker *Kathryn Sharpe*

Advisor *L. Rossi and J.A. Pelesko*

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**11:50 a.m. – 1:15 p.m.**

**Lunch Break**

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<b>1:15 p.m. – 1:35 p.m.</b>	<b>One-dimensional Electromechanical Charge Transport in a Viscous Fluid: Part I</b> Speaker <i>Dan Cargill</i> Advisor <i>J.A. Pelesko</i>
<b>1:35 p.m. – 1:55 p.m.</b>	<b>One-dimensional Electromechanical Charge Transport in a Viscous Fluid: Part II</b> Speaker <i>Tom Fleetman</i> Advisor <i>J.A. Pelesko</i>
<b>1:55 p.m. – 2:15 p.m.</b>	<b>Factors Affecting Water Absorption by Rice and Effect of Initial Temperature on Freezing</b> Speaker <i>Latoria Polk</i> Advisor <i>C. Davies</i>
<b>2:15 p.m. – 2:25 p.m.</b>	<b>Break</b>
<b>2:25 p.m. – 2:45 p.m.</b>	<b>Capturing Dipoles in a 2d Fluid</b> Speaker <i>Drew Marshall</i> Advisor <i>L. Rossi</i>
<b>2:45 p.m. – 3:05 p.m.</b>	<b>A Problem in Seismic Exploration</b> Speaker <i>Andrew Seagraves</i> Advisor <i>Rakesh</i>
<b>3:05 p.m. – 3:30 p.m.</b>	<b>Coffee Break</b>
<b>3:30 p.m. – 3:35 p.m.</b>	<b>Presentation of Sigma Xi Award</b> Speaker <i>George Watson</i>
<b>3:35 p.m. – 3:40 p.m.</b>	<b>Concluding Remarks</b>

