Introductions:

Gloria Waters  
Vice President and Associate Provost for Research

David Bishop  
Head, Division of Materials Science & Engineering, and Professor, Electrical & Computer Engineering, Mechanical Engineering, and Materials Science & Engineering, ENG

Alice White  
Chair, Mechanical Engineering, and Professor, Mechanical Engineering and Materials Science & Engineering, ENG

Research Presentations:

- **Ultrafast Optics and its Applications**  
  Michelle Sander, Ph.D., Assistant Professor, Electrical & Computer Engineering and Materials Science & Engineering, ENG

- **Advancing High Energy Density Batteries Through Controlled Mass Transport**  
  Emily Ryan, Ph.D., Assistant Professor, Mechanical Engineering and Materials Science & Engineering, ENG

- **Organic Electronic Materials**  
  Malika Jeffries-EL, Ph.D., Associate Professor, Chemistry, CAS

- **Biomimetic Growth Factor Delivery Strategies to Improve Mechanical Functionality of Engineered Cartilage**  
  Michael Albro, Ph.D., Research Assistant Professor, Mechanical Engineering and Materials Science & Engineering, ENG

- **Two-Dimensional Materials and Heterostructures**  
  Xi Ling, Ph.D., Assistant Professor, Chemistry, CAS, and Materials Science & Engineering, ENG

- **Computational Materials Science**  
  Sahar Sharifzadeh, Ph.D., Assistant Professor, Electrical & Computer Engineering and Materials Science & Engineering, ENG

- **Nanomanufacturing where Top-Down Meets Bottom-Up**  
  Keith Brown, Ph.D., Assistant Professor, Mechanical Engineering and Materials Science Engineering, ENG, and Physics, CAS

- **Advanced Quantum Dot Synthesis for Biosensing and Biomedical Imaging**  
  Allison Dennis, Ph.D., Assistant Professor, Biomedical Engineering, ENG

- **Single Molecule Magnets**  
  Linda Doerrer, Ph.D., Associate Professor, Chemistry, CAS
• Atomic Membranes  
Scott Bunch, Ph.D., Assistant Professor, Mechanical Engineering and Materials Science & Engineering, ENG

• Lanthanide Binding Tags (LBTs): New Chemical Tools for Molecular Visualization  
Karen Allen, Ph.D., Professor, Chemistry, CAS

• Materials for Electrochemical Energy Conversion  
Srikanth Gopalan, Ph.D., Associate Professor, Mechanical Engineering and Materials Science & Engineering, ENG

Thank you for your participation