NASA KY Space Grant and EPSCOR Awards

Pathways of Opportunities
Pathway Success Stories

- **Haluk Karaca (UK, ME), YT Cheng (UK, MSE)**
  - Pathways of Opportunities
    - US
    - RIDG
  - Expanded Partnerships
    - NASA - ARC, JSC, LaRC
    - Advanced Dynamics Corp - Patrick Hu

- **Alexandre Martin, Sean Bailey, Michael Winter (UK, ME)**
  - Pathways of Opportunities
    - US, GF
    - RIDG, WCS
  - Expanded Partnerships
    - NASA - GRC, LaRC
    - KSU - Shi Chen

**RA Team Development**

- **Jessica Lair (EKU, P&A)**
  - Pathways of Opportunities
    - RIA
  - RA Pre-Proposal Team Member
    - Galaxy Formation

- **Beth Guiton (UK, Chemistry)**
  - Pathways of Opportunities
    - US, GF, RIA
    - RIDG
  - RA Pre-Proposal Team Member
    - Solar Energy

- **Shi Chen (KSU, CS)**
  - RA Team Member
  - RA Pre-Proposal Team Member
    - Computational Electromagnetics

2013 Research Area

- **Shape Memory Alloys**
- **Ablative Thermal Protection Systems**

2011 Research Area

- **NASA Kentucky**
  - Space Grant Consortium and EPSCoR Program
Early Career Faculty Research Areas

**Space Power and Energy Storage**
Beth Guiton (UK, Chemistry)
  Nanowire Li-ion Battery Electrodes, GRC
Kevin Revell (MuSU, Chemistry)
  Organic Photovoltaics, GRC
Aaron Cramer (UK, Elec and Comp Engineering)
  Modular Power System Architecture, ARC

**Astrophysics**
Jessica Lair (EKU, Physics and Astronomy)
  Type Ia Supernovae Late Light Curves, GSFC
Kevin Brown (MoSU, Earth and Space Systems)
  Cosmic X-Ray Background NanoSat, MSFC

**Astrobiology**
Yinan Wei (UK, Chemistry)
  Biomimetic Membrane Sensing and Separation, ARC

**Atmospheric Composition**
Matthew Nee (WKU, Chemistry)
  NO_x Vibrational Lineshapes, JPL

**Space Based Optics**
Edward Kintzel (WKU, Physics and Astronomy)
  Nondestructive Analysis of Large Optics, MSFC
Michael Seigler (UK, Mechanical Engineering)
  Active Shape Control of Membrane Optics, JPL
  MEMS Spacecraft Attitude Control, MSFC