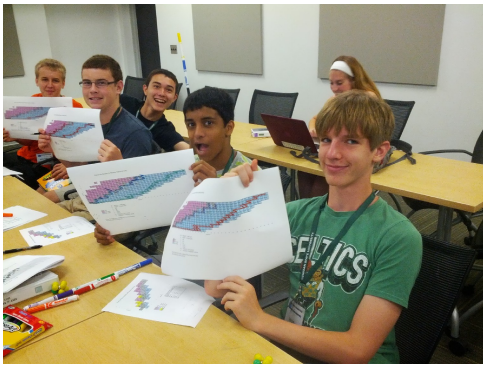
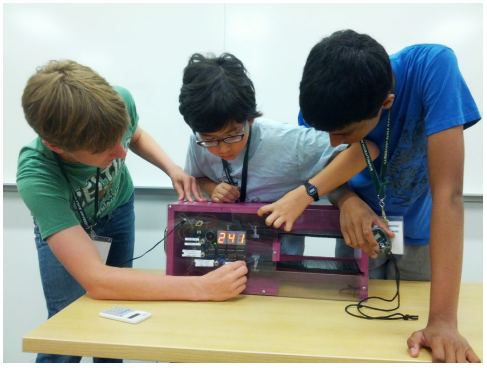
Joint Institute for Nuclear Astrophysics

Math, Science, Technology 2013 @ MSU

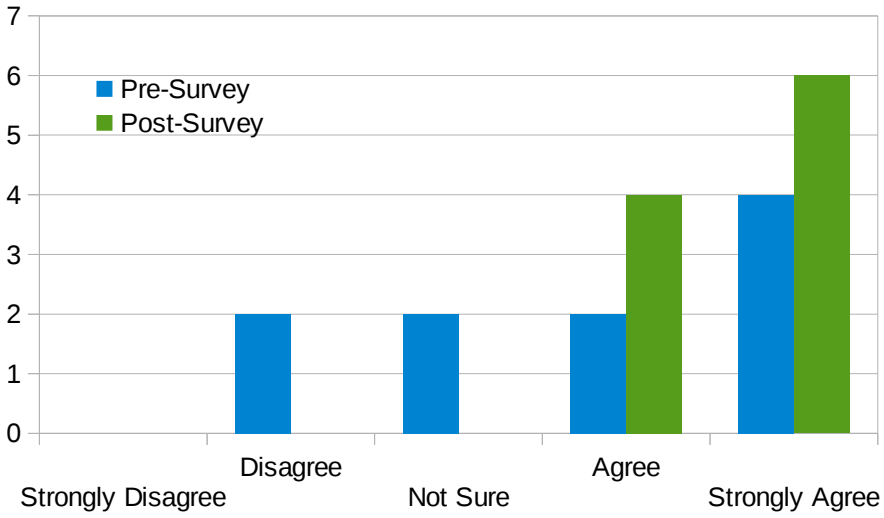
Ten middle-school students (8 male, 2 female) chose to take the Nuclear Astrophysics class during MST 2013. MST offers a variety of STEM options from which students choose two courses, and one extracurricular activity.
Taught by JINA faculty, graduate students, and staff, the two-week course served as an intensive introduction to nuclear science and career paths. After an introduction to nuclear astrophysics and a tour of NSCL, students participated in interactive lectures on topics such as light, stellar evolution, nucleosynthesis, cosmic rays, and current research at JINA institutions. They also performed experiments with portable cosmic ray detectors to measure the effect of concrete shielding. Students ended the course with a poster session to explain their cosmic ray experiments to peers and parents.
Surveys at the beginning and end of the program showed gains in understand what work a science/research careers ionvolves and how to prepare for such a career (see chart below). The number of students intending to major in physics/astronomy also doubled from 3 to 6. Two students even listed their future career as “Nuclear Astrophysicist” after the program! Needless to say, none did before the program.



“Nuclear astrophysics was amazing!”



I understand how to prepare for a science/research career



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