2015 Workshop: Improve Education in CEDAR Sciences

Long title
Developing Strategies for Enhancing CEDAR Science in Student Research, Curriculum, and Outreach
Conveners
Kim Nielsen
Susan Nossal
Description

The CEDAR community is widely known to put a strong emphasis on including its student members in its activities, and is best demonstrated in the high quality (and numbers) of student presentations at each CEDAR workshop. From the inception of CEDAR, the community of scientists have explored and unfolded many science questions about our near-space environment. As addressed in the CEDAR Strategic Plan, the future of CEDAR science involves a high degree of complexity and requires a strong interdisciplinary collaboration. In order to prepare for this forthcoming task, we as a community should also consider how we could improve the training of future CEDAR scientists. Education is listed as one of the implementations of Strategic Thrust #5: Fuse the knowledge Base Across Disciplines. The scope of this workshop is to have a discussion among educators (teachers and advisers) and students (undergraduate and graduate) regarding how we can enhance CEDAR science in the educational system, including mentoring of students. It is a goal to have this to be an annual event where we exchange experiences including but not limited to:

• Best practices for mentoring student research (action plans, milestones, assessments etc.) • Implementation of research activities into the curriculum. • Sharing of curriculum development. • Increase preparedness of undergraduate students towards graduate careers in CEDAR science. • Improve outreach activities • Utilize other NSF programs to expand educational efforts within CEDAR communities.

The format of this workshop will short presentations followed by round-table discussion. Please let us know if you would like to give a short presentation. We see this workshop as both a place to learn about innovative teaching practices and to

gain feedback from colleagues about new ideas and teaching challenges.

Justification

From the inception of CEDAR, the community of scientists have explored and unfolded many science questions about our near-space environment. As addressed in the CEDAR Strategic Plan, the future of CEDAR science involves a high degree of complexity and requires a strong interdisciplinary collaboration. In order to prepare for this forthcoming task, we as a community should also consider how we could improve the training of future CEDAR scientists. Education is listed as one of the implementations of Strategic Thrust #5: Fuse the knowledge Base Across Disciplines.

View PDF