# The TRESTLE Project: Scaling up educational improvements at CU
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**Observation:** The Science Education Initiative hired and trained postdocs to partner with faculty on course transformation projects. Effective, but costly.

**Question:** How can we propagate change through a more limited infusion of resources and personnel?

**Proposed solution: By building *communities of scholars* around course transformation, to amplify the effects of local experts.**

# TRESTLE

*Transforming Education, Stimulating Teaching and Learning Excellence*

## Scaffolding change in STEM teaching practice through strong networks focused on course transformation.

**Embedded experts**
- Education experts within departments
- Postdocs and grad students
- Faculty leaders

**+**

**Communities of scholars**
- National networks
- Interdepartmental communities
- Faculty learning communities

**+**

**Measuring change**
- Surveys and observations of faculty
- Document analysis
- Institutional case studies

## TRESTLE at CU Boulder includes…

**Course transformation awards**
*$10,000 / Last RFP in Fall 2017*
Grants to support experienced personnel to work on course transformation, to spread expertise within or across departments.

Awardees:
- Quantitative reasoning for social sciences (Mathematics; Grant and Tubbs)
- Case studies (IPHY; Casagrand, Heisler, Foley)
- Introductory labs (Physics; Bolton)
- Critical thinking in intro course (ENVS, Hinckley)

**Mini Stimulus grants**
*$1000 / Deadline ongoing*
Support pilots or small projects.

Awardees:
- Geoscience faculty workshop (ATOC, Jahn)
- Improving college algebra (SASC, Machen)
- Mastery approach in computer science (CS, Hoenigman)

**ShInDiG + networking**
Shared Innovation Discussion Group, TRESTLE awardee gatherings, and national TRESTLE network meeting create connections. CU hosted 2016 national meeting.

**TRESTLE Scholars communities**
Faculty communities around course transformation, facilitated by faculty experts. *Next Scholars in Spring '2018.*

Past communities:
- ATOC program objectives (Spring '16; Chasteen)
- Group-worthy activities (Fall '16, Knight)
- Helping students reflect on learning (Spring '17; Ciancanelli and Knight)
- Course based undergraduate research experiences (Fall '17; Corwin and Harvey)

BAY VIEW ALLIANCE

TRESTLE is an NSF-funded grant to test models of educational improvements at 7 universities in the U.S. and Canada, all part of the Bay View Alliance.

TRESTLE institutions: University of Kansas, Indiana University, University of Colorado, University of California Davis, University of Texas San Antonio, University of British Columbia, Queens University

**More Information**
http://colorado.edu/csl/TRESTLE and http://colorado.edu/sei
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**References**
Chasteen et al., Phys. Rev. Spec. Top. – Phys. Ed. Rsrch., 11, 020110 (2015)