

# Consortium for Verification Technology Outreach Activities

K. Kearfott<sup>1</sup>, S. D. Clarke<sup>1</sup>, Z. He<sup>1</sup>, J. C. Lee<sup>1</sup>, A. Hero<sup>1</sup>, D. K. Wehe<sup>1</sup>, S. A. Pozzi<sup>1</sup>, A. Danagoulian<sup>2</sup>, A. Glaser<sup>3</sup>, F. von Hippel<sup>3</sup>, P. Richards<sup>4</sup>, J. K. Mattingly<sup>5</sup>, M. Garces<sup>6</sup>, I. Jovanovic<sup>7</sup>, L. Carin<sup>8</sup>, P. Wilson<sup>9</sup>, J. Baciak<sup>10</sup>, A. Enqvist<sup>10</sup>, A. Farsoni<sup>11</sup>, F. D'Errico<sup>12</sup>, and C. J. Sullivan<sup>13</sup>  
<sup>1</sup>University of Michigan, Ann Arbor, MI 48109, <sup>2</sup>Massachusetts Institute of Technology, Cambridge, MA 02139, <sup>3</sup>Princeton University, Princeton, NJ 08544, <sup>4</sup>Columbia University, New York, NY 10027, <sup>5</sup>North Carolina State University, Raleigh, NC 27695, <sup>6</sup>University of Hawaii, Honolulu, HI 96822, <sup>7</sup>Pennsylvania State University, University Park, PA 16802, <sup>8</sup>Duke University, Durham, NC 27708, <sup>9</sup>University of Wisconsin, Madison, WI 53706, <sup>10</sup>University of Florida, Gainesville, FL 32611, <sup>11</sup>Oregon State University, Corvallis, OR 97330, <sup>12</sup>Yale University, New Haven, CT 06520



## CVT Education and Outreach Programs

1. CVT Research Fellowships
  - Undergraduate Fellowships
  - Graduate Fellowships
  - Post-doctoral Fellowships
  - Faculty Sabbatical Fellowships
  - National Laboratory Expert Fellowships
2. Career Development
  - Fellows Career Development
  - Fellows Transition to National Laboratories
3. New and Enhanced Academic Courses
  - New Course Development
  - Certificates of Public Policy
4. Outreach
  - Workshops, Summer Schools, and Conferences
  - Underrepresented Minority Research Opportunities
  - Institute of Nuclear Materials Management Student Chapters

## Engineering Campus Visit

- The UM College of Engineering hosts campus-wide laboratory visits for local high-school students
- The CVT hosted a tour of our laboratories for approximately 30 students from the University High School Academy of Southfield, MI



Tony Shin (CVT Fellow, PhD Candidate) discusses how his equipment is used for his research to a group of high school students visiting his laboratory at UM

## College of Engineering Xplore Workshop

- CVT Assistant Director Shaun Clarke led a series of workshops entitled "Are You Radioactive?" for elementary-aged students and their families
- The workshop included a short introduction to radiation physics,
- Afterwards, the students built and tested their own cloud chamber
- The Workshops engaged approximately 35 students



A student testing his hand-made cloud chamber during the "Are You Radioactive?" Workshop

## Workshops

- The CVT hosts annual workshops focused on technical and policy related aspects of treaty verification
  - MCNPX-PoliMi Users' Workshop (UM)
  - CVT 2015 (UM)
  - CAEN Electronics Data Acquisition Workshop (UM)
  - Nuclear Verification at Low Numbers (Princeton)
- Attendance includes students, faculty, and staff from across the U.S., and abroad



Workshop attendees gain hands-on experience with MCNPX-PoliMi

## In the News

- Prof. Frank von Hippel was featured in a New York Times special report
- Prof. Sara A. Pozzi was featured in an Channel News Asia (largest 24-hour TV news channel in Singapore) on issues including nuclear non-proliferation and North Korea. April 1, 2016



## Roof-top Radiation Monitoring at UM

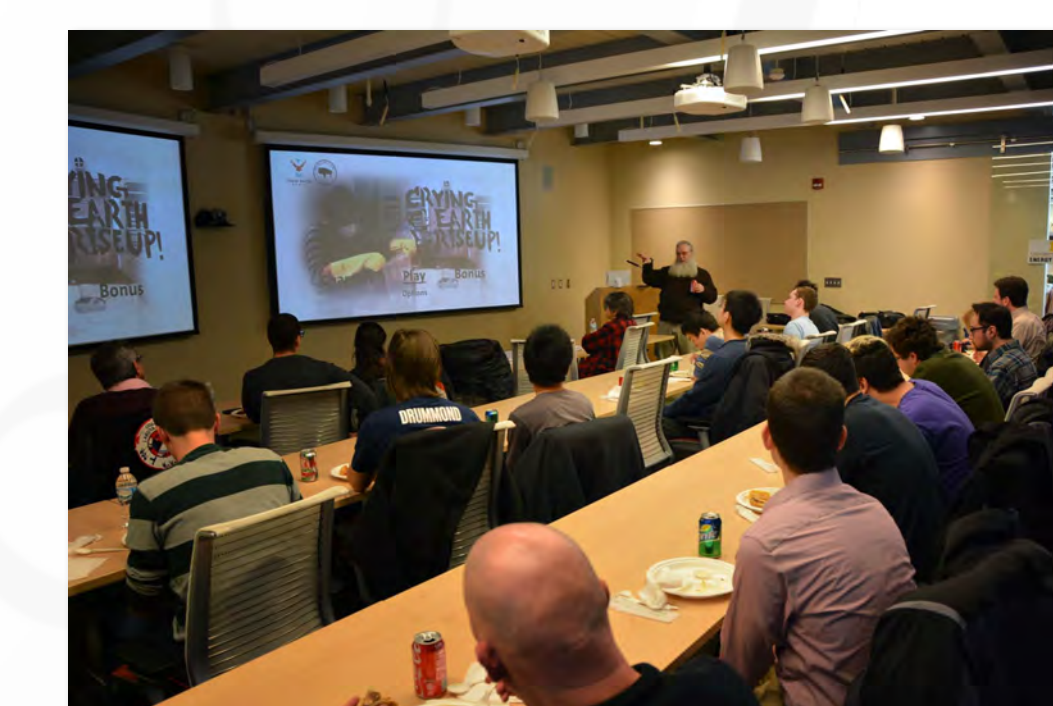
- Radiation detectors are being installed on the Cooley building rooftop at the University of Michigan
- These detectors will provide real-time gamma-ray and neutron background data available to the public



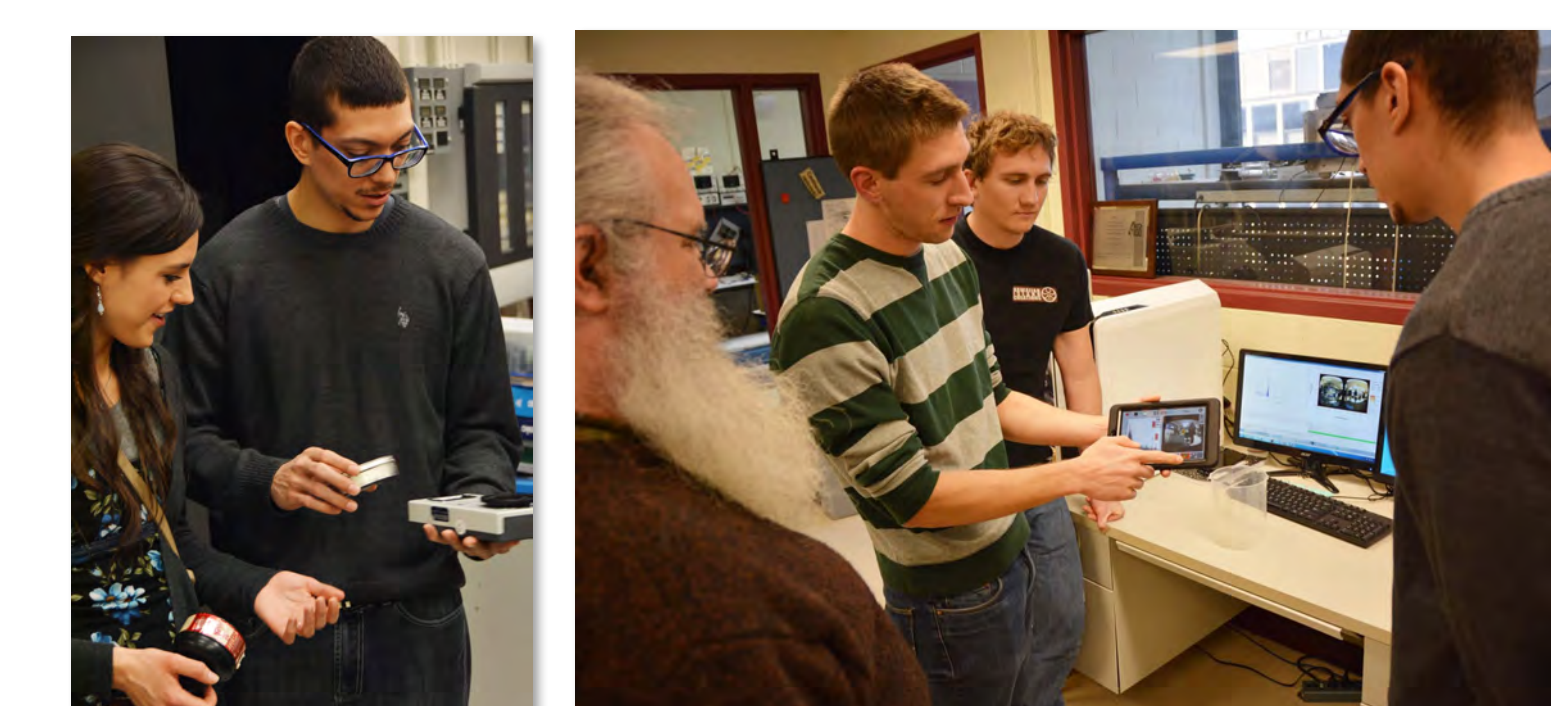
Travis Smith and Rebecca Lynch (CVT undergraduate fellows) with Prof. Kim Kearfott (CVT Thrust Area 6 Lead) installing radiation detectors and weather monitoring equipment on the Cooley building roof-top at UM

## Oglala Lakota College Delegation

- The CVT hosted a delegation of two professors and three students from Oglala Lakota College at the University of Michigan
- Prof. LaGarry gave multiple seminars to UM faculty and students about radiation issues on the Pine Ridge Reservation



Prof. Hannan LaGarry's seminar for UM faculty and staff titled "In Situ Leach Mining"



OLC students and faculty toured the UM radiation measurements laboratories

## Conclusions

- The CVT are engaged in a wide variety of outreach activities geared to maximize the talent of students entering our programs

