



NIST Centers of Excellence Program

Purpose and Overview

Susan Ballou

The NIST Centers of Excellence expand NIST's impact and mission delivery by enabling NIST to partner with foremost experts in critical technical areas

Current NIST Centers of Excellence

- CHiMaD - Center for Hierarchical Materials and Design (January 2014)
- Center for Risk-Based Community Resilience Planning (February 2015)
- CSAFE - Center for Statistics and Applications in Forensic Evidence (May 2015)



CHiMaD

The logo for CHiMaD features the letters 'CHiMaD' in a bold, blue, sans-serif font. The letter 'i' is replaced by a stylized black and white tower structure.

Resilience

The logo for Resilience features three stylized house icons in black, green, and yellow above the word 'Resilience' in a bold, black, sans-serif font. A black line curves under the text, ending in a speech bubble tail.

csafe
Center for Statistics and Applications in Forensic Evidence

The logo for CSAFE features a colorful, multi-layered circular graphic on the left, composed of concentric rings in various colors. To the right, the word 'csafe' is written in a lowercase, grey, sans-serif font. Below this, the full name 'Center for Statistics and Applications in Forensic Evidence' is written in a smaller, grey, sans-serif font, separated by a thin red horizontal line.

NIST Centers of Excellence Program

Purpose and Overview

- Enable collaborations between NIST and leading research institutions in emerging technology areas to help NIST meet mission needs in new or expanding areas of strategic focus
- Enhance technical innovation through early alignment of measurement science with emerging fields of research
- Provide new opportunities for training of students and postdocs in measurement science
- Provide greater opportunities for NIST to engage with entrepreneurs and with industry



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Programmatic Evaluation

- Does COE complement NIST programs
- Are the accomplishments and planned future objectives aligned with NIST goals and objectives
- Has the COE fostered and expanded expertise in this technical area
- Has the COE succeeded in engaging underrepresented minorities
- Development of new students and postdocs and their impact on NIST



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Plans for Review of the CoE Program

- CoEs will be evaluated at year 5 to determine whether to extend the award or move in a new direction
- Robust process needed to evaluate quality, effectiveness, and value of partnership to determine continued investment
- Formal technical and operational reviews and site visits by NIST and external panels
- Performance during initial award period
- Quality of proposed plan for future period
- Alignment with NIST programmatic priorities
- Effectiveness of collaboration



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Specific CSAFE Challenges

- New and scientifically sound probabilistic and statistical methods to quantify uncertainties associated with collection, analyses and interpretation of pattern and digital evidence
- Tools to train stakeholders (law enforcement, crime labs, judges, lawyers, etc.) in the application of these new approaches
- New generation of students prepared to enter the workforce with a knowledge of these skills and expertise.



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NIST Scientists Involved with the Forensic CoE Program

- Lead: Susan Ballou
- Div 602 – Rich Cavanagh, John Butler, Reva Schwartz, Melissa Taylor, Robert Thompson, Shannan Williams
- Div 770 – Martin Herman
- Div 774 – Michael Garris, Elham Tabassi, Yooyoung Lee
- Div 775 – Barbara Guttman, James Lyle, Richard Ayers
- Div 776 – Will Guthrie, Simone Gittelsohn, Steve Lund, Hari Lyer
- Div 683 – Richard Silver, Brian Renegar, John Song, Johannes Soons, Alan Zheng



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PLEASE WELCOME

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