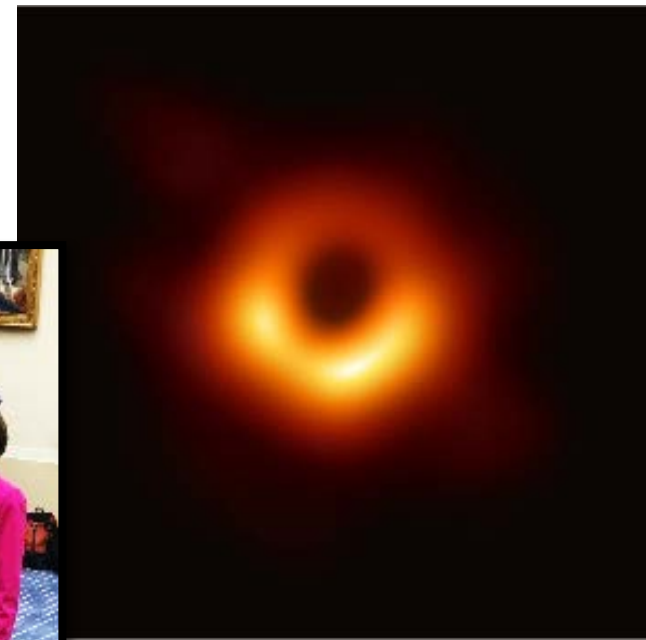
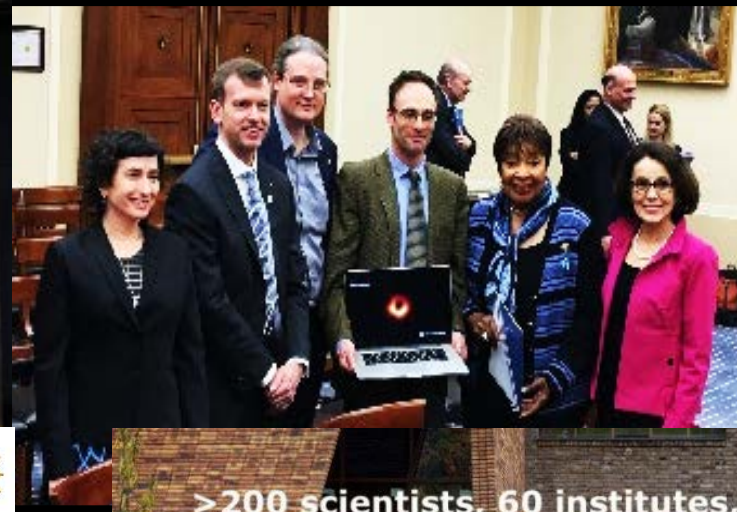




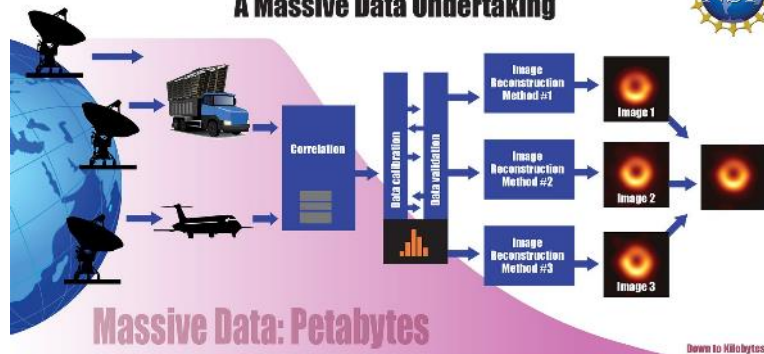
DIRECTOR'S REMARKS

National Science Board
May 14, 2019

Event Horizon Telescope



Event Horizon Telescope Imaging of Black Hole A Massive Data Undertaking



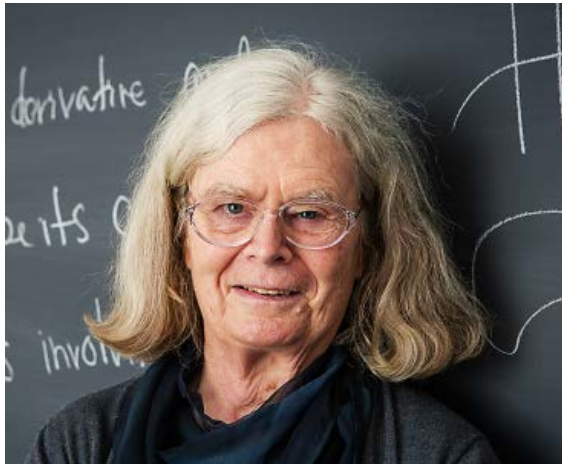
- Multiple telescopes scattered around the globe simultaneously record radio waves from a single (astronomical) source.
- Data is too big to be transferred over the internet and must be recorded or amplified out to the correlator for processing.
- The correlator combines large volumes of raw data from all telescopes, sifting out signals from noise.
- Correlated data gets calibrated and validated through a iterative process in order to enable image reconstruction.
- Calibrated data moves ahead to image reconstruction. Different methods are used to confirm the result.
- Images are compared to theoretical predictions, simulations, models, etc.

Illustration credit: Zina Deretsky
Special thanks to the University of Arizona and MIT Haystack Observatory.



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Abel Prize



Karen Uhlenbeck
University of Texas at Austin
Institute for Advanced Study

Turing Award



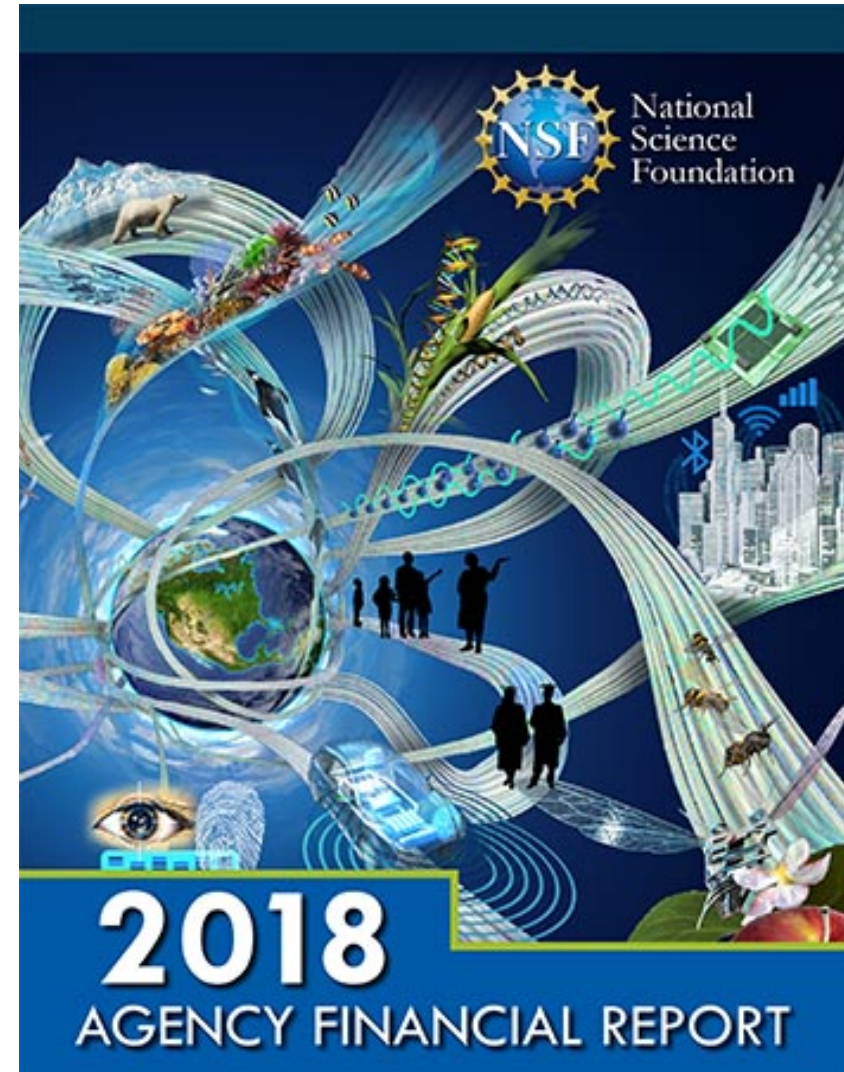
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House of Representative Hearings



Select Committee on AI



NSTC – Research Environment

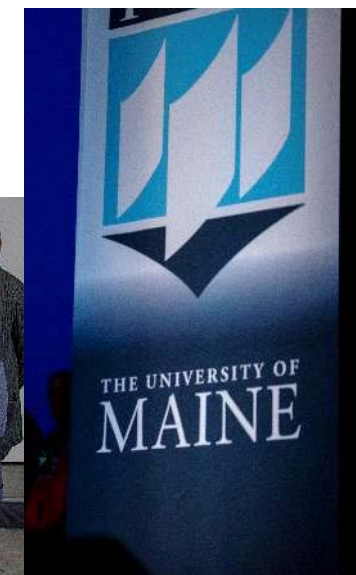
Visits to University Stakeholders



University of Puerto Rico



Princeton University



University at Buffalo



Arecibo, University of Central Florida



Johns Hopkins University



Talking Policy & Partnerships



Coast Guard



Business-Higher Education Forum



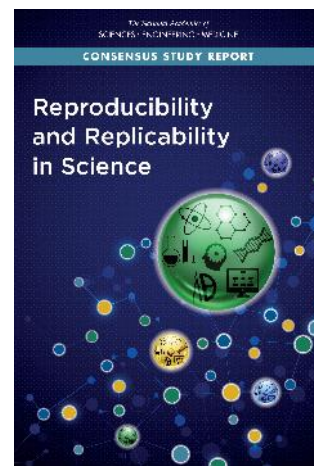
AAAS



Department of Defense



South by Southwest



National Academies



The Economist



International Officials Meet with NSF



United Kingdom



South Korea



Finland



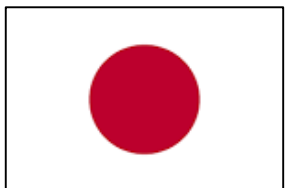
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