

UC SANTA BARBARA

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## **Jeff Dozier of UCSB's Bren School Wins Microsoft Research's Jim Gray Award**

Jeff Dozier, a professor and founding dean of UC Santa Barbara's Bren School of Environmental Science & Management, has today been awarded Microsoft Research's 2nd Annual Jim Gray eScience Award.

The award, which includes a \$20,000 cash component, recognizes innovators whose work has made an especially significant contribution to the field of data-intensive computing. It was established to honor the memory of one of Microsoft's best-known researchers, Jim Gray, who went missing nearly three years ago while sailing to the Farallon Islands to scatter his mother's ashes. Gray specialized in analyzing very large data sets and helped build the WorldWide Telescope.

Microsoft Research said it selected Dozier for the award because his research epitomizes Gray's legacy and vision for data-intensive computing and his understanding of the way science has to change.

Dozier was specifically cited for his pioneering research on remote sensing, water resources, and climate change, and his contributions to the integration of environmental science and computer science.

The awarded was presented by Tony Hey, corporate vice president of Microsoft External Research, at the 2009 eScience Workshop held at Carnegie Mellon University in Pittsburgh.

"Jeff Dozier's work epitomizes what the Jim Gray eScience Award is all about ... using data-intensive computing to accelerate scientific discovery and, ultimately, to help solve some of society's greatest challenges," said Hey. "By combining environmental science with computer science technologies, Jeff brings a new level of understanding to climate change and its impact on our planet. Microsoft Research is proud to recognize him with this distinguished award."

Dozier has authored pioneering interdisciplinary studies on the hydrology, hydrochemistry, and remote sensing of mountainous drainage basins, and on the integration of environmental science and computer science. He served as senior project scientist in the early days of NASA's Earth Observing System, which integrates satellite images of Earth, data systems, and science to increase understanding of the planet as an integrated system. Dozier currently investigates how climate change affects the mountain snowpack and the management of water from snowmelt.

"We all miss Jim, and we wish the Jim Gray Award were in honor of his 65th birthday instead of a memorial," said Dozier. "I am humbled and delighted to be selected as this year's recipient."

Dozier went on to explain that he first met Gray in the early 1990s, when they served together on a National Academy committee. "As the Project Scientist for NASA's Earth Observing System, which at that time was in the planning stages, I was of course interested in how we could take full advantage of the large data streams that we were going to get from the satellite instruments," recalled Dozier. "Over the years, we had many fruitful exchanges about current technology and the likely computing future. The happy result is that many environmental scientists are truly able to analyze long time series of images that cover vast areas of the globe.

"Ironically," Dozier added, "I met my wife at about the same time I met Jim, and her expertise in computer science and her questions about whether what I do is useful have helped me focus on data-intensive science that helps people make decisions about managing resources."

Dozier is one of the contributors to "The Fourth Paradigm," a book just published by Microsoft Research that brings together essays by leading academics and other experts in the field of data-intensive scientific research. The Fourth Paradigm concept was articulated by Gray, who envisioned new scientific discovery based on data-intensive science. The volume, according to Microsoft Research, illustrates the power of computing to help tackle some of society's greatest challenges, including health care and the environment. More information on the book can be found at <http://research.microsoft.com/fourthparadigm>

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