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## IN THEIR WORDS

“Predicting big quakes based on small quakes is like the ‘whack-a-mole’ game.”

-Professor Seth Stein on anticipating big earthquakes in the Midwest

## TODAY'S EVENTS

University Chorale: 70th Annual Christmas Concert - Handel's Messiah  
[December 5, 2009 7:30 PM](#)

A Festival of Lessons and Carols  
[December 6, 2009 10:30 AM](#)

Lecture: When Crocs Ate Dinosaurs  
[December 6, 2009 2:00 PM](#)

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December 2, 2009 | Students

## Two at Northwestern Named Boeing Engineering Students of the Year

### Students honored for research likely to impact the future of aerospace engineering

By Megan Fellman

EVANSTON, Ill. --- Two Northwestern University graduate students in the McCormick School of Engineering and Applied Science have received first and second place in the 2009 Engineering Student of the Year Award competition sponsored by The Boeing Company and presented by the aerospace publisher Flightglobal.

The annual worldwide competition had two joint first-place winners this year: [Can Bayram of Northwestern](#) and Michael Grant of Georgia Institute of Technology. The second-place winner is Pierre-Yves Delaunay of Northwestern.

Julio M. Ottino, dean of the McCormick School, will host an awards event at 9:30 a.m. Monday, Dec. 7, in Cook Hall, room 2058, 2020 Campus Drive, on the Evanston campus. John J. Tracy, Boeing chief technology officer and senior vice president of Engineering, Operations & Technology, and Warren McEwan, sales director - North America, Flightglobal, will be in attendance.

The winners were announced as part of the Flightglobal Achievement Awards ceremony in the United Arab Emirates Nov. 14, the eve of the Dubai Air Show. Boeing has partnered with Flightglobal to host the Engineering Student of the Year competition since 2005 in an effort to encourage students to pursue careers in aerospace-related engineering fields.

Bayram and Delaunay both are Ph.D. candidates in the department of electrical engineering and computer science and members of the Center for Quantum Devices (CQD), led by Manijeh Razeghi, Walter P. Murphy Professor of Electrical Engineering and Computer Science.

"Boeing embodies innovation and leadership in aerospace technology, and I am excited and honored to receive this recognition from the company," Bayram said. "I hope to take advantage of the unique networking opportunities this award presents me and to develop a strong relationship with Boeing and other leaders in aerospace technology."

Bayram, a native of Turkey, focuses his research on energy-efficient III-Nitride semiconductor devices, including developments such as high-sensitivity ultraviolet detectors, high-performance light-emitting diodes and compact terahertz emitters, which could advance reliability, duration and performance in many areas of aeronautics and astronautics.

"Boeing has been a pioneer in aerospace for many years, thanks to a tradition of innovation and outstanding research," Delaunay said. "It is a great honor for me to receive this award, and I hope that my work can be useful to the aerospace industry."

Delaunay, a native of France, uses a novel quantum material called Type-II superlattices to fabricate infrared cameras. Atomic engineering of this semiconductor opens the door to novel photon detectors that are more sensitive and faster than previous technologies. The infrared cameras based on superlattices can detect temperature differences of a few millidegrees Celsius in a fraction of a millisecond.

"When I came to Northwestern University, it was my objective to create an environment that nurtures exceptional students to do research that has extraordinary applications," says Razeghi, director of CQD. "The numerous student awards in my group this year are just an example of how the Center for Quantum Devices has progressed towards achieving this goal. I'm thrilled that both the first- and second-place winners are from our group."

The Engineering Student of the Year Award competition is open to any full- or part-time engineering student around the world pursuing a recognized degree. The winning student's work must be judged as likely to impact the future of aerospace engineering in areas such as new or enhanced capabilities, systems, processes or tools; new levels of performance; and improved life-cycle costs.

"In our 2009 competition, we received a record number of entries from students in a diversity of nations and with a diversity of outstanding talents, interests and abilities," said Boeing's Tracy. "So to receive first or second place in this award competition is a great tribute to these students' significant achievements and future promise."

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