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[Andrea Estrada](#)

UCSB's Joseph Incandela Receives Prestigious International Physics Prize

Joseph Incandela, professor of physics at UC Santa Barbara and spokesman for the Compact Muon Solenoid (CMS) experiment at the European Organization for Nuclear Research's (CERN) Large Hadron Collider (LHC), has been awarded a Special Fundamental Physics Prize by the Milner Foundation.

Incandela will share the \$3 million prize with six other members of the LHC project, including Peter Jenni, Fabiola Gianotti, Michel Della Negra, Tejinder Singh Virdee, Guido Tonelli, and Lyn Evans. The group is being recognized for its leadership role in the scientific endeavor that led to the discovery of the new Higgs-like particle by the CMS and ATLAS collaborations at CERN's LHC.

The CERN group's Special Fundamental Physics Prize is one of two awarded by the Milner Foundation this year. The second was presented to Stephen Hawking for his discovery of Hawking radiation from black holes, and his contributions to quantum gravity and quantum aspects of the early universe.

"The discovery of the Higgs Boson is the big event in physics in 2012, and the recognition of Professor Incandela as one of the four leaders of the CMS experiment at CERN accentuates his invaluable contributions to the discovery," said Pierre Wiltzius, the Susan & Bruce Worster Dean of Science at UCSB. "We are very proud of

the role he and his colleagues played in this momentous discovery."

Said Michael Witherell, vice chancellor for research at UCSB: "We are proud of the fact that Joe Incandela was the only physicist from outside Europe in the group of people honored for the spectacular discovery of the Higgs boson. UCSB has an extremely strong group of physicists exploring new territory with the Large Hadron Collider, and the energy of the accelerator will almost double over the next two years. We could easily have more discoveries like this in the near future."

Incandela said of the prize: "It is a great honor, and it was a big surprise. I began my involvement in the CMS experiment 16 years ago in the hope of answering very profound questions about nature and our universe. The discovery we announced on the 4th of July was the culmination of an unbelievable number of brilliant contributions by thousands of scientists over a period of 15 to 20 years. I believe that the Milner prize committee wanted to recognize this amazing achievement, and they chose the spokespeople who have led the experiment throughout its history, but it is for something that many thousands of people made possible. I am very fortunate and thrilled that this has happened on my watch."

Noted Rolf Heuer, director general of CERN: "It is a great honor for the LHC's achievement to be recognized in this way. This prize recognized the work of everyone who has contributed to the project over many years. The Fundamental Physics Prize underlines the value of fundamental physics to society."

Incandela said he would like to see some portion of the prize used as a means to recognize and support the work of young scientists, who, as he noted, "work long, long hours, are under intense pressure, and often earn very little money."

"I like the idea of an annual award that would recognize not only outstanding contributions to the experiment, but also exceptional collaborative spirit," he continued. "One of the great things we demonstrate in an experiment like CMS -- which has 41 countries participating -- is the amazing things people can achieve if they are able to set aside cultural differences, respect one another, and work together toward a common goal. This is something the world needs now, and it would be something I would like to encourage."

Also honored by the Milner Foundation is Joseph Polchinski, professor of physics at UCSB and a permanent member of the Kavli Institute of Theoretical Physics. Polchinski was named one of three recipients of the 2013 Physics Frontier Prize. With

the award, he becomes a nominee for the foundation's \$3 million Fundamental Physics Prize, which will be presented on March 20, 2013, in a special ceremony at CERN.

The awards are presented through the Fundamental Physics Prize Foundation, a non-profit corporation established by the Milner Foundation, which was founded by Russian entrepreneur Yuri Milner. Both are dedicated to advancing the knowledge of the universe and honoring scientific breakthroughs, as well as bringing the excitement of fundamental physics to the general public.

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