

# Former UCSB Doctoral Student Justin Weber Wins 2012 Nicholas Metropolis Award

## Awarded for "Outstanding Doctoral Thesis Work in Computational Physics"



Former UC Santa Barbara Physics PhD student has received the [2012 Nicholas Metropolis Award for Outstanding Doctoral Thesis Work in Computational Physics](#). Weber received the award for his doctoral thesis titled "The Impact of Defects on Computer Technology: From CMOS to Quantum Computers."

Chris

Van de Walle is very proud of Justin to have received the prestigious Nicholas Metropolis Award! says Weber's advisor and professor of Materials [Chris Van de Walle](#)

It's a splendid recognition of his achievements during his PhD work, which included the study of defects in novel materials for integrated circuits. His work beautifully exemplifies the type of research we want to pursue in my Computational Materials Group: producing results that have an impact on technology, while also elucidating fundamental physics and materials science.?

The purpose of the award is to recognize doctoral thesis research of outstanding quality and achievement in computational physics. The award consists of \$1,500 and a certificate to be presented at an awards ceremony at the Division of Computational Physics annual meeting. This year's meeting will be held in September in Granada, Spain.

Justin Weber came to UC Santa Barbara in 2005 to pursue a PhD in Physics. He studied defects in semiconductors with Professor Van de Walle, and examined the impact of atomic scale defects on modern computer technology, with specific focus on nonclassical CMOS devices and quantum computers.

In collaboration with the group of Professor David Awschalom, Justin helped create a framework characterizing and designing novel defects to be used as qubits for quantum computing. For this work, Justin was awarded the International Union of Pure and Applied Physics Young Author Best Paper Award.

After completing his PhD in 2011, Justin joined Intel Corporation, where he continues to work in computational materials science.

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