

Kevin Limanta

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Office: Microsystems Technology Laboratory Room 39-625, Cambridge, MA 02139

Education

Massachusetts Institute of Technology

PhD Candidate in EECS

Cambridge, MA

Sept 2020 - now

Massachusetts Institute of Technology

Bachelor of Science, Dept. of Physics, GPA: 5.0/5.0

Cambridge, MA

June 2020

Research Experience

Tomás Palacios Group, Microsystems Technology Laboratories, MIT

Cambridge, MA

08/18 - present

- Fabrication, measurement, and analysis of microelectronic devices such as GaN optoelectronics, GaN high electron mobility transistors, and $\text{Hf}_{0.5}\text{Zr}_{0.5}\text{O}_2$ ferroelectric MOS and MIM capacitor.
- Microelectronic fabrication using cleanroom processes such as lithography, dry and wet etching, oxide atomic layer deposition, metal deposition, acid cleaning.
- Heterogenous integration of GaN optoelectronics with 2D materials, quantum dots, silicon-based microelectronic circuits.
- Simulation (with Sentaurus TCAD and Silvaco Atlas) of electrical and optical characteristics of semiconductor devices

Nakatsuji Lab, Institute of Solid State Physics, University of Tokyo

Kashiwa, Japan

Undergraduate Researcher

06/18 - 08/18

- Collected and analyzed electrical and magnetic measurement data of a new quantum material (MnB_2) at low temperatures and high magnetic fields, for potential spintronics applications
- Prepared single crystal samples of MnB_2 by x-ray diffraction, powder diffraction, cutting, and polishing

Photon Scattering Lab, Department of Physics, MIT

Cambridge, MA

Undergraduate Researcher

06/17 - 05/18

- Measured and analyzed high-resolution Raman scattering data of iron-based high temperature superconductors (RbFe_2As_2 and KFe_2As_2) under ultra-high vacuum and cryogenic temperatures
- Explored quantum properties of RbFe_2As_2 superconductors in a hard x-ray scattering experiment at NSLS II, Brookhaven National Laboratory

Teaching Experience

Classical Mechanics I Teaching Team, Department of Physics, MIT

Cambridge, MA

Undergraduate Teaching Assistant

09/17 - 12/17

- Guided a section of 17 students during group problem solving sessions in class
- Provided one-on-one feedback through graded problem sets

Awards

International Physics Olympiad Silver Medalist, Zurich, Switzerland

July 2017

Asian Physics Olympiad Gold Medalist, Hong Kong

May 2017

International Physics Olympiad Silver Medalist, Mumbai, India

July 2016

Asian Physics Olympiad Gold Medalist, Hangzhou, China

May 2016

Extracurricular Activities

Mathematics Olympiad Instructor

Indonesia

Oct 2023

- Coached a first-grade student for an international-level Math Olympiad
- Taught concepts such as multiplication, division, exponents, linear equations, probability and combinatorics, and sums of series.