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University of Notre Dame Physics REU Program

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Greetings,

My name is Jordan Hanson, and I am an assistant professor in the Department of Physics and Astronomy. I am recommending Daniel Diaz for the Physics REU program at Notre Dame. Daniel is an excellent physics student at Whittier College. I first met Daniel in the Fall of 2020 in my upper-division electromagnetism course: PHYS330 (Electromagnetic Theory). Daniel was easily my best student, and he received an A, plus extra credit.

Several aspects of the character of Daniel as a student stand out in my mind. The course represented a difficult situation. Normally, this is our upper division theoretical physics course covering Maxwell's Equations that normally requires one semester. However, the course had to be taught in seven weeks totally online due to changes put in place by Whittier College. Daniel responded by acing the homework and tests, and completing a theoretical physics project beyond the scope of the course.

Daniel concluded a final project on time, and with multiple rounds of feedback and productive discussion. Daniel computed multipole expansions of quadrupole and octopole moments of charge distributions. I was impressed by his mathematical skill and ability to work and learn the material independently. He gave a polished presentation with complete mathematical detail.

In closing, I highly recommend Daniel Diaz for the research program.

Sincerely,

Jordan C. Hanson, PhD