

Dear UCLA Admissions Team,

This letter addresses two main points. First, why I am proposing a PhD in Theoretical Ecology that brings together the areas of Physics, Computing, Ecology and Climate Change. Second, why I believe that my international background in physics and computational ecology make me an ideal candidate for this program.

During my studies in fundamental physics track, I worked with many physical models that explain nature from different perspectives: the Schrödinger equation, the Fermi gas, or weak gravitational lensing, are some of the models and theories that I enjoyed the most. The physicist Murray Gell-Mann once wrote: *How can it be that writing down a few simple and elegant formulae, like short poem [...], can predict universal regularities of Nature?*. As I advanced into my junior year, I gradually came to appreciate the field of programming. My growing interest in this area lead me to decide to combine astrophysics and data analysis in two of my research projects: my final thesis, founded by TASSEP scholarship and my research colaboration scholarship project.