Melissa Fu
Physicist and Teacher

I am a physics and electronics teacher at Long Road Sixth Form. I have been teaching there since September and, like any good teaching job, I find it challenging, exciting, stressful, maddening, and ultimately fulfilling. Why do I do it? I love teaching physics. I am fascinated with understanding how people learn a challenging subject. It is especially rewarding to see students' confidence grow during those golden moments when the lightbulbs go on. I think physics is beautiful and I love the fact that my job forces me to find ways to share its elegance and beauty with people who are curious and interested, but may find it intimidating at times.

My educational background is something of a patchwork quilt. I earned a double major in English and Physics at Rice University in Houston, Texas. That was followed by graduate work in Physics at the University of Colorado Boulder. I focused on the use of transition metal oxides as potential battery materials. But during my graduate studies, I felt something was missing and I wanted to teach. So, I left science for some time and completed an MA in English Education. Teaching secondary English in a variety of schools helped me focus my interests and strengths as an educator. I found that while I love literature, my teaching talent is for science and maths. I did a few years of science outreach work, taught some university level physics, and went back and completed that graduate degree I had started many years before. After finding a great "niche" of teaching physics at community colleges (adult students) in the US, we made the big decision to come to Cambridge for my husband's career. I had a two-year career break while we moved, started learning how to live (and drive) in the UK, and welcomed our second child. This fall I returned to teaching.

What motivates me? Perhaps both the past and the future. I was blessed with some amazing teachers in secondary school. Many of them still remain role models for how I learn and teach. As for the future, my students motivate me. I find their dreams and hopes inspiring. I have such respect for the ways they learn to struggle through challenges. I'm not sure yet what all this will lead to. As my background shows, I've never been one to follow classical trajectories for life. I have a passion for improving physics education and science literacy. I suspect I'll work towards that goal through continued teaching and eventually doing science education research. Like Schroedinger's cat, I think I thrive without a definitive state, and a healthy superposition of teaching and research would be ideal for me.