

Comments to the Advanced Accelerator R&D HEPAP Subpanel
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As a recent graduate of the Rosenzweig group at UCLA I wanted give the panel my impressions of the current state of education and training of accelerator scientists.

AN ADVANCED ACCELERATOR SCIENTIST'S EDUCATION:

I started graduate school planning to do work in more traditional experimental plasma physics and wound up doing my dissertation in plasma based advanced accelerators which I feel is one of the most exciting areas of plasma research today.

My training was broad and thorough consisting of 7 years of graduate work and 1 year of follow on postdoc at UCLA. I took many formal plasma and accelerators courses, learned how to plan and conduct experiments, and designed and built a variety of equipment including chicane magnets, a spectrometer, a small DC electron gun, and a discharge plasma source. My dissertation was on plasma based electron beam sources and my postdoc focused on an underdense plasma lens experiment and an ongoing GV gradient dielectric wake experiment. In the course of these experiments I did work at UCLA, Fermilab, and SLAC.

As you can see my training was very diverse and, I feel, of very high quality. It is also my impression that most of my contemporaries feel the same way.

Last summer I moved on from UCLA to Livermore where I am working on ultra-fast electron diffraction studies of strongly coupled solid density plasmas and am continuing my advanced accelerator research part time. I think my shift to a somewhat different field speaks highly of the versatility of an education in advanced accelerators.

LOOKING FORWARD:

From my experience I would say that the training and education of advanced accelerator scientists is largely at a very good level.

To my mind the challenge of the future lies predominately in recruitment and retention, which is a problem faced by all the physical sciences. Strong university programs are an essential tool for recruiting new talent into accelerator physics. Keeping trained scientist in the field will require our best efforts to maintain competitive compensation, vibrant and adequately funded research programs, and reasonably stable future career prospects for young scientists.