Hello, New Data-Explorers of the Stars!

As you jump into DESI High, I want to give you a very warm welcome to the exciting world of dark energy research. My own interest in this field, cosmology, grew out of my curiosity ever since childhood in the most fundamental questions: How does the physical world work? How does the mind work? What's in that missing "owner's manual" for the world we live in? I was therefore always interested in all sorts of ways we could make sense of the world, and all of the "languages" that we used in this attempt, including music, literature, math, science -- and all of their specialized symbols and jargon.

By the time I got through college and into physics graduate school, I was hunting for a project that might allow me to study physics questions that felt philosophically meaningful. I was eventually lucky enough to find a project measuring the expansion of the universe, with the goal of finding out if the universe would last forever or come to an end in a Big Crunch collapse, and also whether it was infinitely big. Those sounded like really great philosophical questions!   And you could learn about them by simply finding and studying distant exploding stars, supernovae, and using their brightness and redshift to tell you how much the universe's acceleration has been slowing down due to gravity. But in the end we found a result that was even better than the answer to those two philosophical questions – the surprising result that the expansion of the universe was accelerating! And ever since, we all have been having the fun of trying to figure out what 'dark energy' (as we call this mysterious ingredient that dominates the universe) is causing the acceleration!

DESI is the very first of the experiments that can reach the remarkable level of precision in measuring the expansion history that makes it possible to begin exploring the nature of dark energy. And you are joining a remarkable group of scientists who like rolling up their sleeves and digging into the big questions of our age. I hope your exploration of data that is hot-off-the-DESI-telescope sparks the creative experimentalist in you!

Best wishes for a fun exploration,

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