

DO PHYSICS.



BE ANYTHING.

## UNC PHYSICS



### Think Physics is Too Abstract?

Just Look at That Flying Cow  
Or Ask Nicole Estrich

Diffraction patterns in water, flying cows, computers and food processing. It all makes sense to Nicole Estrich because physics makes sense of it all for her. Even if at first, it doesn't.

Estrich remembers becoming intently interested in physics in high school when something unexpected happened in a water tank.

"It had a bar you could lift up and down to make waves," Estrich said. "There was a wall with two slits in it. Water went out the slits and the waves interfered with one another to create a pattern of different amplitudes on the back wall different than what you'd expect from two slits. It's not intuitive that it would do that. If I can figure out these non-intuitive things for a reason and use math to do it, then I can figure out a lot of things."

Like the trajectory of flying cows.

"If you have a spherical cow flying through the air, and you want to map his motion and figure out something that will happen to the cow, then you can do that with physics," Estrich said. "You just need your brain and math."

Don't make assumptions about Estrich based on her affinity for airborne bovines. She has her serious side.

"You are so dependent on your computer, but you don't know how it works," Estrich said. "Think about all the food processes we use, but you don't know how they work. We are so dependent on these things that if they break, it could be a life or death situation. If you don't have people who understand how technology works, it will not continue to exist."

Estrich plans on pursuing a career as an experimental physicist, because she has to have a real reason for tackling a problem. Like figuring out why a spherical cow would even want to fly in the first place.

If you encounter a flying cow and need help, contact Nicole Estrich at [enicole@email.unc.edu](mailto:enicole@email.unc.edu).

If you want to see the exact water tank demonstration that Nicole described, go to:

<http://www.youtube.com/watch?v=DfPeprQ7oGc>

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