

Transcript of Dr. Svetlana Barkanova, Physicist

The coolest part of my job is... all that freedom I have!

The best part of my work is research. My research is in subatomic physics, which is physics about the most fundamental components of nature, like quarks and neutrons and neutrinos and the way they interact.

It's about practically inventing new knowledge, writing down the equation nobody wrote down before. My research right now has two components. One of them is theoretic subatomic physics which is about writing down an equation like that one, and one is much more applicable. This is about radon gas in Nova Scotia. Radon is colourless, odourless radioactive gas. The problem with radon is that you cannot see or smell it; you need to detect it with special equipment, which I have. So this is what I do around here; I offer free radon testing. In physics the tools are endless. We get to play with things like enormous particle accelerators, like the large hadron collider, which is going on line soon in Europe.

I think I loved physics as long as I remember. I loved science. I loved experimenting and trying new things and putting my hands on wires and sometimes get shocked by electricity; that happened. Didn't like chemistry that much because things smell; physics seems to be cleaner and more exciting and also more powerful. You can do so much with physics. If you are thinking about becoming a physicist you need to be a person—a kind of person who wants to do your own thing. Nobody is going to tell you what to do; I define my own tasks, I define my own schedule. You need to have good math preparation. You need to have mathematical mind. You need to have analytical mind and you need to be organized and disciplined.

Don't believe if somebody tells you that you can't do math because you're a girl. Don't let anyone to tell you what to do with your life. Decide for yourself if you want to do physics or math, just go for it.