



## Profiles of Physicists



**Kimberly Titus**

**Research Assistant Professor  
College of Textiles  
North Carolina State University**

### Education:

B.S. -- Physics & Mathematics (double major); Stetson University

PhD -- Physics (Experimental Solid State); North Carolina State University

### Job Description:

Research Assistant Professor, developing sensors for apparel automation as well as teaching classes at the university.

### Comments:

"Being a woman in physics has not always been easy, because it is primarily a male field. Sometimes you have to push your way on in, and learn things the hard way. And it's been challenging, but I think the doors are opening wider and wider for women."

### Video Transcript 1:

"The area that I'm working in and that is developing sensors for apparel automation, is actually an area in which relatively little research has been done. That's one of the things that excites me about what I'm doing, is that there's so much opportunity. We brainstorm and come up with all these ideas. And we hardly know where to start sometimes. I'm trying to look at those seam folds and stitch folds throughout the industry. And of course, there's a large volume of knit fabric as well as denim fabric. They're probably the largest areas of apparel manufacturing. Often as the industry's moving toward apparel manufacturing being more automated, you're removing the operator, therefore, you're moving you quality control. And if you do that, for the United States to remain competitive at all, you've got to have some way of determining the quality of seam."

### Video Transcript 2:

"Most of my teaching is done primarily three days a week and a lot of my preparation is outside of my work time here. So really I have close to 40 hours a week devoted to research and specifically it's in the area of aponimation (PH) -- doing a lot of the fundamental work needed to develop sensors or sensing techniques to monitor seam and stitch quality. I interact with faculty members which are not a very homogeneous group actually, as you have in a lot of fields. Faculty members are from a variety of engineering backgrounds: mechanical, electrical, industrial, and computer engineering. There are number of chemists and some other

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physicists as well as faculty members who have even undergraduate/graduate degrees in physics. I also work with a number of students also from a very diverse background. And there are also a number of industrial people which pass through that I get to speak with and rub elbows with."

**Video Transcript 3:**

"Being a woman in physics has not always been easy, because it is primarily a male field. Sometimes you have to push your way on in, and learn things the hard way. And it's been challenging, but I think the doors are opening wider and wider for women."

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