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**DD 1: Eröffnung und Hauptvortrag 1**

Time: Monday 10:30–12:05

Location: H31

**Eröffnung****Invited Talk**

DD 1.1 Mon 11:15 H31

**Challenges of Preparing Physics Teachers in the United States** — •DEAN ZOLLMAN<sup>1</sup>, BRIAN ADRIAN<sup>1</sup>, and SCOTT STEVENS<sup>2</sup>— <sup>1</sup>Kansas State University, Manhattan Kansas, USA — <sup>2</sup>Carnegie-Mellon University, Pittsburgh Pennsylvania USA

The United States, like much of the world, does not have enough qualified physics teachers. As in Germany our educational system varies from state to state. Thus, efforts to improve the number and quality of physics teachers vary throughout the country. However, some efforts are national in scope. The Physics Teacher Education Coalition, PhysTEC, focuses on common goals in preparing teachers of physics at all

levels. Another project, Physics Teaching Web Advisory (Pathway), emphasizes support for teachers who are already teaching physics but have less than adequate preparation in physics or the pedagogy of physics. Pathway combines digital video library technology with contemporary ideas about pedagogy and materials contributed by teachers. Carnegie Mellon University's "synthetic interview" technology provides the foundation for a system that allows physics teachers to ask questions of a virtual mentor and get video responses. Through an analysis of the questions asked in the system we have obtained a rich database of information about what types of support teachers of physics in the US are requesting. This information and other efforts are helping us design support systems for physics teachers, both new and experienced. Pathway and PhysTEC are supported by grants from the US National Science Foundation.