NEBRASKA PHYSICS & ASTRONOMY SUMMIT

OCTOBER 12, 2024

9 AM - 5 PM

This conference is dedicated to providing a variety of professional development opportunities in astronomy and physics education for college, high school, and middle school teachers across the state of Nebraska. A theme of this event is the use of instructional technology to improve our teaching of astronomy and physics. The conference begins with a keynote, an exhibition hall, and your choice of four breakout sessions. After lunch, the second keynote and longer workshop sessions close out the day.

Perennial Wisdom for Modernizing the Curriculum | Dr. Christopher Orban

In the ongoing effort to modernize and improve education, technology plays an increasingly vital role in the classroom. This keynote will explore major trends from the past decade, including the use of clickers, smartphones, virtual reality, and the integration of computational tools into teaching. Drawing on extensive experience at the forefront of educational innovation and collaboration with educators, valuable insights and practical advice will be shared. Additionally, key research from physics education, including significant contributions to the field, will be discussed to uncover the challenges and opportunities that arise when using technology to enhance student learning.

Can Drones Improve Tornado Forecasts | Dr. Adam Houston

In the past two decades, tornadoes in the U.S. have caused over 1,600 deaths, 23,000 injuries, and nearly $31 billion in damage. While large-scale tornado prediction has improved, false alarm rates remain unchanged. Advancements in numerical weather prediction are nearing the point of directly guiding severe weather warnings, but the current meteorological surveillance network lacks the resolution needed for accurate forecasts. Drones could modernize this network and enhance forecasting, but public acceptance of such technology is uncertain.

PLENARY SPEAKERS

Dr. Christopher Orban

The Ohio State University

Dr. Adam Houston

University of Nebraska–Lincoln

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REGISTER ONLINE BY OCTOBER 8

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