



Sigma Xi Public Lecture on Science and Science Issues

Football Physics

Thursday



OCTOBER 28,
2 0 0 4

NEBRASKA UNION AUDITORIUM
UNIVERSITY OF NEBRASKA-LINCOLN
8:00 p.m.

Tim Gay

Professor, Physics and Astronomy
University of Nebraska-Lincoln

Abstract:

This talk discusses a series of one-minute physics lectures given to the $\sim 8 \times 10^4$ fans that attend the University of Nebraska home football games. The lecture topics range from gyroscopic motion to ionizing collisions between linebackers and I-backs. The problem of simultaneous edification and amusement of the fan in the stands is considered.

The Speaker:



Since the fall of 1999, Professor of Physics Tim Gay, a Professor of Physics at the University of Nebraska-Lincoln, has taught the largest physics class in the world — the 78,000 fans that attend the University of Nebraska Cornhuskers home football games in Memorial Stadium. During a pause in the action, Gay's lessons are shown on the giant television screens at either end of the field. They range in length from forty-five seconds to two minutes, and cover such topics as Newton's Laws of Motion (blocking and tackling), projectile motion (kicking and punting), kinematics (open-field running), and the ideal gas law (why not fill the football with helium to get better hangtime?). Laboratory demonstrations have featured Professor Gay being tackled by 370 pound lineman, pummeled with a sledgehammer as he lies on a bed of nails, and learning the finer points of passing from Heisman trophy winner Eric Crouch.

Co-sponsors:

The UNL Chapter of Sigma Xi, The Scientific Research Society and the UNL Department of Physics & Astronomy

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