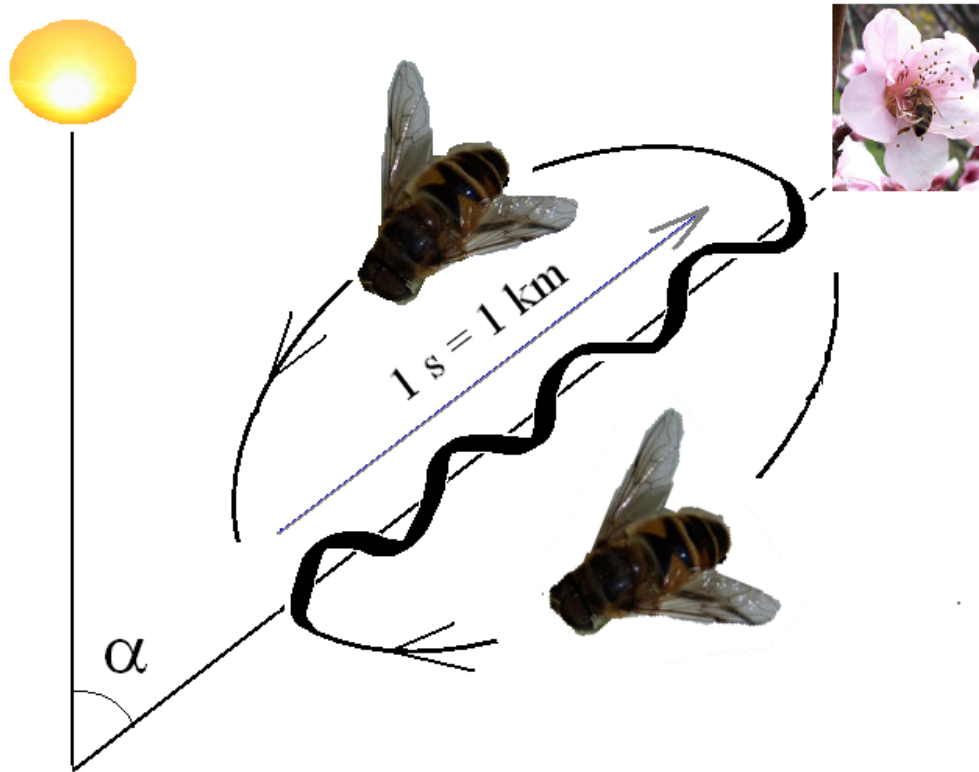


PINEY WOODS LECTURE SERIES

DR. BARBARA SHIPMAN, UTA



MANIFOLDS, DIFFERENTIAL EQUATIONS, HONEYBEE DANCES, AND PHYSICS -
SOME UNEXPECTED CONNECTIONS



SEPTEMBER 24 2007

2 - 3 PM IN LDB 214

RECEPTION TO FOLLOW ON 4TH FLOOR

Abstract: This talk will highlight some surprising connections between mathematics, biology, and physics that the speaker has encountered in her journeys with mathematics. We will look at examples of manifolds and how they are used to study the geometry of certain systems of differential equations. This geometry turns out to be related to the dance language of honeybees, which in turn leads to far-reaching consequences in physics that are currently being developed.