

Discover *the* Physical Sciences

2005-06 Breakfast Lecture Series

The Magnetic Sense of Migratory Birds

by Assistant Professor Thorsten Ritz



Tuesday, May 16, 2006, 7:30 a.m.
at the University Club

Breakfast at 7:30 a.m.
Lecture from 8 a.m. – 9 a.m.

A tour of Dr. Ritz's laboratory
will immediately follow the lecture.

How does a robin find its way home on its migratory route? It is known that birds use a physiological magnetic compass as well as visual cues to find the right direction. We know much about the processes underlying vision in the eye, but the question as to how animals can detect the geomagnetic field is one of the greatest remaining mysteries of sensory biology. What is the mechanism underlying magnetoreception, where can the magnetic sensors be found, and do humans have similar magnetic sensors?

Assistant Professor Thorsten Ritz will show how a team of physical chemists, behavioral biologists, and brain psychologists connected to find new answers to these long-standing questions. He will discuss how understanding the magnetic sense can have relevance to many facets of life beyond understanding bird navigation.

Ritz is the first hire in the new biophysics initiative at UC Irvine's Department of Physics & Astronomy. He uses theory, visualization, and advanced computation to understand what features of biomolecular systems are crucial for their function. He holds a Ph.D. in physics, having received training in Frankfurt, Germany and at the University of Illinois at Urbana-Champaign. A true interdisciplinary researcher, Ritz worked in the Biology and Chemistry Departments at Virginia Tech and Oxford University, respectively, prior to coming to UCI. He is a recipient of an Alfred P. Sloan fellowship, a Fellow of the UK Institute of Physics and of the German National Merit Foundation.

RSVP by May 9th at biosci-physci-events@uci.edu or 949-824-4613.
(Include your name, daytime telephone number and the names of any guests)
