

FOR IMMEDIATE RELEASE

October 18, 2007

Contact: Lisa Merkl
713/743-8192 (office)
713/605-1757 (pager)
lmerkl@uh.edu

FOCUS ON VISION: PIONEER IN ‘CHAOS THEORY’ TO TALK AT UH ABOUT HUMAN, ANIMAL EYES

Tenneco Distinguished Lecture Series Presents Renowned Mathematical Physicist Mitchell J. Feigenbaum

What can we learn from the way animals see? Quite a bit, according to mathematical physicist and chaos theory pioneer Mitchell J. Feigenbaum, who will give a lecture titled “Reflections on Eyes” at the University of Houston.

As part of the UH Tenneco Distinguished Lecture Series, Feigenbaum, Toyota Professor and head of the Mathematical Physics Laboratory at Rockefeller University in New York, will be speaking at 5:30 p.m., Tuesday, Oct. 23 in Room 130 of the Science and Research 2 building on the UH campus. The hour-long lecture is free and open to the public.

In his talk, Feigenbaum will discuss how animals possess optical systems of varying relative acuity and possess this acuity on varying surfaces of focus. He will begin his lecture by addressing how human vision is mirrorlike with a strong propensity for astigmatism. He will then turn his focus to what a fish might see contingent upon good acuity, then determining from data just how excellent its optics prove to be. He will wrap up the presentation speaking about how land animal eyes could easily have been designed to approach those of fish, commenting on the limitations of evolution.

One of a small group of scientists who three decades ago were growing more concerned about the inability of science to explain irregular occurrences in everyday life that could be described as chaotic, such as the shape of clouds, Feigenbaum’s pioneering work in chaos theory led to an explosion of interest in the field in the late 1970s and 1980s. The scaling indices he discovered in the transition to chaos are referred to as the “Feigenbaum Numbers.”

His contributions to the field were recognized with numerous awards, including the MacArthur Fellowship in 1983 and the Wolf Prize in Physics in 1986. Other of his contributions includes novel mathematical tools that were used to redesign the Hammond World Atlas. He is a member of the National Academy of Sciences and the American Academy of Arts and Sciences.

WHO: Mitchell J. Feigenbaum, mathematical physicist and chaos theory pioneer

WHAT: Tenneco Distinguished Lecture

WHEN: 5:30 to 6:30 p.m., Tuesday, Oct. 23

WHERE: University of Houston
Science and Research 2 building
Room 130
Off Cullen Boulevard

###

For more information about UH, visit the university’s Newsroom at www.uh.edu/newsroom.

To receive UH science news via e-mail, visit www.uh.edu/admin/media/sciencelist.html.