

FEATURED TOPIC

Mathematics - A Language for Understanding Love, Life, and the Universe

Dr. Bokil will discuss how Mathematics is the language of science and can help us analyze changes in motion and emotions, the spread of viruses, and ideas. Math is critical to understanding the causes and cures of disease, cooperation and competition within populations, opinions of groups of people leading to consensus, and the trajectories of celestial objects. From the analysis of poetry written during the Renaissance, to the dance of the planets as captured by the laws of Johannes Kepler, the mathematics of change inspires creativity and a uniquely human endeavor for critically thinking about our world.

Vrushali Bokil, Ph.D.

Professor of Mathematics and the Associate Dean for Research and Graduate Studies in the College of Science at Oregon State University.

SO | Southern OREGON
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2022 KIEVAL LECTURE SERIES

WHEN
Monday
May 9, 2022
3:30 pm

WHERE
Science
Room 151

MATHEMATICS LECTURE



Optimal Control of Plant Disease Epidemics

Plant-virus and plant-vector-virus mathematical models have provided insight into effective methods for reduction of disease incidence and for an increase in plant productivity. We address the question of minimizing disease prevalence in plants in developing countries through the optimal usage of clean seeds. We discuss how various modeling results may apply to the control of *maize lethal necrosis* in East-Africa. Finally, we also discuss other examples of the use of mathematical modeling and optimal control theory in controlling plant disease epidemics.

Vrushali Bokil, Ph.D.

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**2022
KIEVAL
LECTURE
SERIES**

**WHEN
Monday
May 9, 2022
9:30 am**

**WHERE
Science
Room 207**

Diversity, Equity, Access & Inclusion Lecture:

Mindfulness and Anti-Oppression in Science

In this seminar, Dr. Bokil will discuss an approach to provide our graduate students in science an understanding of how inequities and injustice are perpetrated within a system of oppression such as an academic institution of higher learning, and create pathways for effective and sustained change. Mindfulness, broadly conceived, and contemplative reflection and practice are utilized as both resource and training to deepen and sustain anti-oppressive attitudes, navigate a mental health epidemic and build Diverse, Inclusive, Respectful and Welcoming mathematical Communities.

Vrushali Bokil, Ph.D.

Professor of Mathematics and the Associate Dean for Research and Graduate Studies in the College of Science at Oregon State University.

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2022 KIEVAL LECTURE SERIES

WHEN
Tuesday
May 10, 2022
9:30 am

WHERE
Churchill Hall
Room 229/230