



2012 Niven Lecture

L. Mahadevan, Harvard University

On growth and form: geometry, physics and biology

3pm, Thursday, May 24 2012

MATH 100, University of British Columbia

Pre-lecture reception 2:30pm in Math Lounge, room 125

The diversity of form in living beings led Darwin to state that it is, “enough to drive the sanest man mad”. How can we describe this variety? How can we predict it? Motivated by biological observations on different scales from molecules to tissues, I will show how a combination of biological and physical experiments, mathematical models and simple computations allow us to begin to unravel the physical basis for morphogenesis.

ABOUT PROFESSOR LAKSHMINARAYANAN MAHADEVAN

Trained initially as an engineer at the Indian Institute of Technology-Chennai, Professor Mahadevan turned to applied mathematics and mechanics under the tutelage of mathematician Joseph Keller at Stanford, where he earned his Ph.D. in 1995. He held professorships in mechanical engineering at MIT, and in applied mathematics and theoretical physics at Cambridge University where he was also a Fellow of Trinity College, before arriving in 2003 at Harvard, where he also has appointments in the Department of Organismic and Evolutionary Biology within the Faculty of Arts and Sciences and in systems biology at the Medical School (HMS). He is currently the Lola England de Valpine Professor of Applied Mathematics and Professor of Organismic and Evolutionary Biology and Professor of Physics at Harvard University.

ABOUT THE NIVEN LECTURES

Ivan Niven was a famous number theorist and expositor; his textbooks won numerous awards, have been translated into many languages and are widely used to this day. Niven was born in Vancouver in 1915, earned his Bachelor's and Master's degrees at UBC in 1934 and 1936 and his Ph.D. at the University of Chicago in 1938. He was a faculty member at the University of Oregon from 1947 until his retirement in 1982. The annual Niven Lecture Series, held at UBC since 2005, is funded in part through a generous bequest from Ivan and Betty Niven to the UBC Mathematics Department.



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