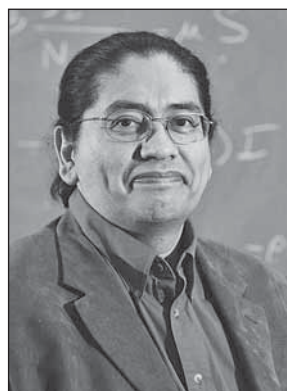


2010 Award for Distinguished Public Service

CARLOS CASTILLO-CHAVEZ received the 2010 Award for Distinguished Public Service at the 116th Annual Meeting of the AMS in San Francisco in January 2010.

Citation

Carlos Castillo-Chavez is a Joaquin Bustoz Jr. Professor of Mathematical Biology and a Regents Professor at Arizona State University. At Arizona State he is the director of the Ph.D. program in applied mathematics in the life and social sciences, executive director of the Arizona State Mathematical, Computational and Modeling Sciences Center, and director of the Institute for Strengthening Understanding of Mathematics and Science (SUMS). The Sciences Center strives to create a dynamic community of quantitative scientists and mathematicians driven to contribute to the solution of problems in the biological, environmental, and social sciences. The SUMS mathematics and science honors program has trained over 2,000 Arizona high school students from economically disadvantaged backgrounds over the past twenty-four years. He is also the founder and director of the Mathematical and Theoretical Biology Institute. This summer program provides sequential research experiences, at the undergraduate and graduate levels, in the field of applied mathematics and its applications to the biological and social sciences for disadvantaged students from across the country. Castillo-Chavez has had a major impact with his efforts and activities in improving the representation in the broad mathematical sciences of the nation's traditionally underrepresented and economically disadvantaged students. He continues his activities in research and education at a very high level and is a most worthy recipient of the AMS Distinguished Public Service Award.



Carlos Castillo-Chavez

Biographical Sketch

Carlos Castillo-Chavez is a Regents Professor and a Joaquin Bustoz Jr. Professor at Arizona State University. Castillo-Chavez's research program is carried out at the interface of the mathematical and natural and social sciences. His research has focused on the role of adaptive social landscapes on disease dynamics and its evolution.

Castillo-Chavez and other collaborators' contributions are tied into the study of questions of interest in fields of ecology, epidemiology, evolutionary biology, and homeland security. Their research highlights the relevance and criticality of computational, mathematical, modeling, and statistical approaches in the study of the dynamics and control of addiction, childhood diseases, dengue, foot and mouth disease, HIV, influenza, and tuberculosis at the population level. Their research has also contributed to the study of cross-immunity in the context of influenza and behavior dispersal, and movement on disease evolution.

Carlos Castillo-Chavez has coauthored nearly 200 publications, including the 2001 textbook *Mathematical Models in Population Biology and Epidemiology*. His edited volume (with Tom Banks) on the use of mathematical models in homeland security, published in SIAM's *Frontiers in Applied Mathematics* series (2003), provided the first collection of mathematical studies on bioterrorism. The volumes *Mathematical and Statistical Approaches to AIDS Epidemiology* (Springer, 1989), *Mathematical Approaches for Emerging and*

