

## VITA

**Name:** Maria Lam

**Departmental Affiliation:** Professor  
Computer Science

**Education:** M.S. in Applied Science  
Concentration in computer science  
The College of William and Mary, Williamsburg, Virginia, 1985.

Ph.D. in Mathematics  
The Catholic University of America  
Washington, D.C., 1974.

M.S. in Mathematics  
St. Mary's University, San Antonio, Texas, 1968.

**Languages:** English, Chinese

**Citizenship:** US

**Research Areas:** Geometric Modeling  
Computer Simulation

**Research Activities:** Investigator of a DOE research project to study suprathreshold alpha particles in the field of tokamaks from 1995 to 1998.

Principal Investigator of a NASA research project titled "Investigation into Shape-preserving Interpolants using Symbolic Manipulation" from 1987 to 1994.

Researcher of a Naval Surface Warfare Center project to generate 3D graphics software, 1990.

Associate Investigator of a Los Alamos National Laboratory research grant Titled "Anomalous Transport in reversed Field Pinch" from 1988 to 1989.

Associate Investigator in a NASA MACSYMA project from 1983 to 1988.

## **Publications and Contributed Papers:**

- Sci., Monotone and Convex Quadratic Spline Interpolation, Virg. J. Sci., Vol. 41, No. 1, 3-13 (1990).
- Graphics on a NeXT Workstation, Virg. J. Sci., Vol. 42, No. 2 (1991).
- Monte Carlo Calculations for Transport due to MHD Modes, J. Plasma Physics, Vol. 44, No. 3, 405-430 (1991).
- Approximation with NURBS, Virg. J. Sci., Vol. 43, No. 2, 225 (1992).
- Ripple Transport of Suprathermal Alpha Particles in Tokamak, Bull. Am. Phys. Soc., Vol. 40, No. 11, 1649 (1995).
- Monte Carlo Simulation of Suprathermal Alpha Particles in Rippled Field of Tokamak, 1996 International Sherwood Fusion Theory Conference, 3C07.
- Monte Carlo Calculations of Suprathermal Alpha Particles Trajectories in the Rippled Field of TFTR, Bull. Am. Phys. Soc., Vol. 41, No. 7, 1394 (1996).
- High Adjustable Shear Map for a Single-null Divertor Tokamak, Bull. Am. Phys. Soc., Vol. 41, No. 7, 1452 (1996).
- Rotational Transform in Adjusted Shear Map for a Single-null Divertor Tokamak, Bull. Am. Phys. Soc., Vol. 42, No. 10, 2015 (1997).
- Energy Transfer of Suprathermal Alpha Particles in Rippled Field of Tokamak, Virg. J. Sci., Vol. 49, No. 2, 79 (1998).

**Professional Experience:** Instructor of Physics  
Assistant Professor of Mathematics and Computer Science  
Associate Professor of Computer Science  
Professor of Computer Science  
all at Hampton University