LARRY S. LIEBOVITCH, PhD

Webpage: http://people.qc.cuny.edu/faculty/Larry.Liebovitch/Pages/Default.aspxLinkedIn:http://www.linkedin.com/pub/larry-liebovitch/5a/725/996Curriculum Vitae:http://people.qc.cuny.edu/Faculty/Larry.Liebovitch/5a/725/996

Skills

- Mathematical modeling of complex systems in space and time using differential equations.
- Creative analysis of experimental data, especially the statistics of distributions with "long tails".
- Computer programming: Fortran, BASIC, Matlab, (learning Python).
- Successful managerial experience in leading teams to define and complete projects.
- Good communication skills including web and social media.
- Teaching: undergraduate and graduate courses in astronomy, statistics, complexity, psychology.

Queens College, City University of New York, NY

2010-present Professor of Physics & Psychology, Director of Special Projects

2010-2013 Professor of Physics & Psychology, Dean of the Division of Math & Natural Sciences,

- Developed a strategic plan for four interdisciplinary teaching and research clusters. Hired 10 faculty and planned building and laboratory renovations to implement this plan.
- Improved student recruitment through an updated website, social media, new Division brochure, and brought high school and community college students to events on campus.
- Increased externally funded grants and raised new scholarship funds.
- Organized division wide events to reduce the barriers between departmental "silos".

Florida Atlantic University, Boca Raton FL

1993-2010 Professor of Psychology, Interim Director of the Center for Complex Systems, Assoc. Dean

- Helped develop the Graduate Governance Document and policies for a new Graduate College.
- Helped develop Professional Science Masters Degrees in Biotechnology and Medical Physics.

Education

- PhD Astronomy, Harvard University, Cambridge MA
- BS Physics (summa cum laude), City College of New York, NY

Examples of Research Projects (a sample from 4 books, 24 book chapters, and 80 articles):

Signal analysis of audio voice recordings: Behavioral and emotional dynamics of two people struggling to reach consensus about a topic on which they disagree. Kurt, Kugler, Coleman, and Liebovitch. 2013. *PLOS ONE*, accepted 11/15/2013.

Nonlinear analysis of economic data: Correlated walks down the Babylonian markets. Romero, Ma, Liebovitch, Brown and Ivanov. 2010. *Europhysics Letters* 90:18004. doi: 10.1209/0295-5075/90/18004.

Mathematical models of human behavior: Dynamics of two-actor cooperation-competition conflict models. Liebovitch, Naudot, Vallacher, Nowak, Bui-Wrzosinska, and Coleman. 2008. *Physica A*, 387:6360-6378. doi: 10.1016/j.physa.2008.07.020.

<u>Artificial neural networks (machine learning)</u>: Developing combinatorial multi-component therapies (CMCT) of drugs that are more specific and have fewer side effects than traditional one drug therapies. Liebovitch, Tsinoremas, and Pandya. 2007. *Nonlinear Biomedical Physics*1:11 (30 August) doi:10.1186/1753-4631-1-1107.

<u>Spatial-temporal patterns</u>: Migration induced epidemics: Dynamics of flux-based multipatch models. Liebovitch and Schwartz. 2004. *Physics Letters A* 332:256-267.

Information flow across networks: Information flow dynamics and timing patterns in the arrival of email viruses. Liebovitch and Schwartz. 2003. *Phys. Rev. E* 68 017101-1 - 017101-4.