

## CURRICULUM VITAE

### Professor Wolfgang Losert, PhD

Physical Sciences Complex, Room 1147

Phone: (301) 405-0629

Ph.D. Physics, City College of the City University of New York 1998

Diplom (~MS) *summa cum laude* Applied Physics, Technical Univ. Munich 1995

#### Academic Positions

Professor of Physics, University of Maryland College Park 7/2014-present  
Institute for Physical Science and Technology  
Institute for Research in Electronics and Applied Physics  
Department of Bioengineering (Affiliate)  
Greenebaum Cancer Center, University of Maryland School of Medicine (Adjunct)

Associate Professor, University of Maryland College Park 7/2006-6/2014  
Assistant Professor, University of Maryland College Park 8/2000-6/2006  
Visiting Assistant Professor, Haverford College, Dept. of Physics 7/1999-7/2000  
Research Associate, Haverford College, Dept. of Physics 2/1998-7/2000

#### Administrative Leadership Positions

**Interim Director, Institute for Physical Science and Technology 7/2019- present**  
**Associate Dean for Research, College of Computer, Mathematical, and Natural Sciences**

**Associate Dean for Research and Graduate Education, 5/2018- 7/2019**  
**College of Computer, Mathematical, and Natural Sciences**

**Associate Dean for Research, Graduate Education, and Faculty Affairs, 7/2016- 5/2018**  
**College of Computer, Mathematical, and Natural Sciences**

**Interim Associate Dean for Graduate Educ. and Faculty Affairs, CMNS 8/2015-6/2016**  
**Interim Associate Dean for Research, CMNS 7/2014-6/2016**

- Led development of a Professional Track Faculty Promotion plan.
- Led efforts geared at inclusive excellence and diversity.
- Facilitating the development of international partnerships, e.g. a joint graduate program with Max Planck Institutes and a research partnership with Lund University.
- Strengthening core facilities and development of an imaging incubator.
- Revitalized Partnership with the Fraunhofer Center

**Director, UMD-NCI Partnership for Integrative Cancer Research 6/2010-present**

- Initiated the partnership with NCI intramural, aimed to bring together the expertise and resources at the University of Maryland, with basic, clinical, and translational research expertise of the National Cancer Institute to solve the most pressing problems in cancer research. Since 2018 Doron Levy is serving as UMD co-director.
- Organize one of the joint symposia per year.
- Co-organize annual seed grant competition.
- Since its start in 2010, the partnership has supported collaborative projects for more than 40 graduate students from 8 PhD Programs mentored jointly by NIH investigators and faculty from the University.
- In 2016 expanded the partnership to NIH Neuroscience – NINDS.

## **Chair, Senate Educational Affairs Committee**

**8/2012-7/2014**

- Led the review of Massive Open Online Courses – MOOC

## **Director, Biophysics Graduate Program**

**7/2011-6/2014**

### **Board and Steering Committee Memberships**

Editorial Board, The Biophysicist (1/2019-present)

Maryland Crime Research and Innovation Center Advisory Board (8/2018-present)

Fraunhofer Center for Software Engineering (6/2015-present)

Brain and Behavior Initiative Steering Committee (1/2015-present).

Editorial Board, Physical Biology (5/2013-present)

Board of Directors, German School Washington (private school, pre-K-12) (2010-2014). Private school with ~600 students, operated by the board of directors. 2012-2014 Chair of the Building Committee. Oversaw start of a major renovation of the main building.

Burgers Program Board (2009-2014). International, transdisciplinary program in fluid dynamics.

### **Leadership Roles in Professional Societies**

Inaugural Executive Committee Leadership, New APS Group on Data Science (2019-present).

Executive Committee Leadership, APS Division of Biological Physics (2012-2016, Chair 2015).

Member-at-Large of the Executive Committee: APS Group in Statistical and Nonlinear Physics (2008-2011).

### **Research and Scholarly Activities**

Honors: Fellow of the American Physical Society (2017).

Publications: 6 book chapters, 9 articles in refereed conference proceedings, 6 invention disclosures, 1 patent, and >100 articles in refereed journals. Google scholar h-index 40 with >5000 citations.

Talks: Invited to give more than 150 conference talks, colloquia, and seminars.

Technology Funding: PI on 3 grants to acquire major research instruments from ONR, AFOSR, and NSF.

Research Funding: PI or co-PI on 28 research grants from NSF, NIH, DOD, HHMI, AFOSR, NIST.

#### Major Grants:

- NIH BRAIN initiative U19 Center grant (2018-2023). Lead Data Science Core.
- Lead of AFOSR MURI grant in Biophysics (2016-2021)
- Co-Lead of a NIH BRAIN initiative U01 grant. (2014-2018)

#### Organization of Conferences

I have organized and secured funding for conferences aimed at getting together groups from different scientific disciplines and fostering trans-disciplinary dialogue and teaching.

- Co-Organizer: Q-Bio 2020 at the University of Maryland. Next year's conference is part of a conference series on quantitative biology and will be co-organized with NCI. The main themes of the conference will be biological modeling and machine learning.

- Co-Organizer. workshop on Physics of Development and Disease (Aspen Center for Physics, 2016).
- Co-Organizer: Dynamics Days 2002, 2006, and 2012. The four day meeting, supported by grants of ~100K\$, brings together about 300 researchers covering a wide range of topics in nonlinear dynamics.
- Organizer: Summer school on Granular Materials: From Simulations to Astrophysical Applications (College Park, June 2011). Meeting aimed at connecting the granular physics and asteroid science communities.

### **Mentoring**

- Mentored the research of >70 undergraduate students, 3 Masters students, 20 international visiting students, **31 PhD students, and 10 postdoctoral researchers.**
- ~50% of students/postdocs are from groups underrepresented in STEM
- Students have won >60 awards and recognitions.
- Five of the 23 former PhD students/Postdocs are now tenure track faculty.

### **Outreach**

My group has been offering Demonstrations for University of Maryland College Park Maryland Days (2001-present): “Physics of Sandpiles” (2001-2016), “Cells in Motion” (2013-2014) an IMAX video Biophysics Exhibit developed in collaboration with Dorothy Beckett, the Houston Science Museum, and Baylor College of Medicine, and “Move like a cell” (2013-present) a Biophysics active engagement demonstration that involves motion of participants and live motion tracking and analysis.

### **Education and Training**

#### *Development of Courses at the Convergence of Physics and Biology*

**PHYS 828M Cancer Biophysics** (3 credit course, 2010,2011). The course at the convergence of physics and biology brought current topics at the convergence of physical sciences and oncology to physics and biophysics graduate students.

**PHYS 131/132 Introductory Physics for Life Scientists** (3 credit course plus labs). Co-Developer with E.F. Redish of this new Interdisciplinary Physics Course Sequence and Laboratory for Life Sciences Students focused on modern pedagogy coupled with modern biophysical content with freely available course materials. **I led the development the laboratory sequence focused on introducing modern science and technology through modern pedagogy.** The course and labs are being adapted by several universities including Purdue University, Montgomery College, and Georgia Tech. (1/2012-current) [www.compadre.org/nexusph](http://www.compadre.org/nexusph)