

Curriculum Vitae

Dolores Bozovic

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Personal:

Born in Belgrade, Yugoslavia, 1973; U.S. citizen

Education:

Harvard University, Cambridge, MA
Ph. D. in Physics, 2001

Harvard University, Cambridge, MA
M.S. in Physics, 1997

Stanford University, Stanford, CA
B.S. in Physics, 1995

Appointments:

University of California Los Angeles: 2005-present
Department of Physics and Astronomy, UCLA, Los Angeles, CA 90095

Howard Hughes Medical Institute: 2001-2005
Rockefeller University, New York, NY 10021

Awards:

2020	Outstanding Teaching Award (144)
2014	Outstanding Teaching Award (110A, 144)
2011	Outstanding Teaching Award (M180G)
2009	Outstanding Teaching Award (M180G)
2008	Outstanding Teaching Award (Physics 262, M180G)
2008	P-G. de Gennes Prize (for research in Biophysics)
2008	UCLA Faculty Career Development Award
2006	Outstanding Teaching Award (Physics 262)
1995	National Science Foundation Fellowship
1992	Society of Geophysics Scholar
1991	Society of Women Engineers Award

1991 Edward H. Ginzton Scholar
1991 Presidential Scholar

Publications:

“Efferent activity controls hair cell response to mechanical overstimulation”, C. J. Lin, and D. Bozovic, *eNeuro*, **9**, 0198-1-16 (2022).

“Chimera states and frequency clustering in systems of coupled inner-ear hair cells”, J. Faber and D. Bozovic, *Chaos*, **31**, 073142 (2021).

“Violation of the generalized fluctuation-dissipation theorem in biological limit cycle oscillators with state-dependent internal drives: Applications to hair cell oscillations”, J. Sheth, D. Bozovic, and A. J. Levine, *Phys. Rev. Res.*, **3**, 023150-1-10 (2021).

“Synchronization and chaos in systems of coupled inner-ear hair cells”, J. Faber, H. Li, and D. Bozovic, *Phys. Rev. Research*, **3**, 013266 (2021).

“Dynamics of mechanically coupled hair-cell bundles of the inner ear”, Y. Roongthumskul, J. Faber, and D. Bozovic, *Biophys. J.*, **120**, 1-12 (2021).

“Effects of efferent activity on hair bundle mechanics”, C. J. Lin, and D. Bozovic, *J. Neurosci.*, **40**, 2390-2402 (2020).

“Chaotic dynamics enhance the sensitivity of inner ear hair cells”, J. Faber and D. Bozovic, *Scientific Reports*, **9**, 18394-1-12 (2019).

“Active biomechanics of sensory hair cells”, D. Bozovic, pp. 27-39, *Cold Spring Harbor Perspectives in Medicine: Function and Dysfunction of the Cochlea*, eds. G.R. Richardson and C. Petit, CSH Press, NY (2019).

“Noise-induced chaos and signal detection by the nonisochronous Hopf oscillator”, J. Faber and D. Bozovic, *Chaos*, **29**, 043132-1-8 (2019).

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“Molding the asymmetry of localized frequency-locking waves by a generalized forcing and implications to the inner ear”, Y. Edri, D. Bozovic, E. Meron, and A. Yochelis, *Phys. Rev. E*, **98**, 020202-1-6 (2018).

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“Amphibian sacculus and the forced Kuramoto model with intrinsic noise and frequency dispersion”, S. Ji, R. Bruinsma, and D. Bozovic, *Phys. Rev. E*, **97**, 042411-1-18 (2018).

“Chaotic dynamics of inner ear hair cells”, J. Faber and D. Bozovic, *Scientific Reports*, **8**, 3366-1-9 (2018).

“High-order synchronization of hair cell bundles”, M. Levy, A. Molzon, J.H. Lee, J.W. Kim, J. Cheon, and D. Bozovic, *Scientific Reports*, **6**, 39116-1-9 (2016).

“Frequency locking in hair cells: distinguishing between additive and parametric forcing”, Y. Edri, D. Bozovic, and A. Yochelis, *Europhys. Lett.*, **116**, 28002-1-7 (2016).

“Synchronization of spontaneous active motility of hair cell bundles”, T. Y. Zhang, S. Ji, and D. Bozovic, *Plos One*, **10**, e0141764 (2015).

“Voltage-mediated control of spontaneous bundle oscillations in saccular hair cells”, S. W. F. Meenderink, P. M. Quinones, and D. Bozovic, *J. Neurosci.*, **35**, 14457-14466 (2015).

“Mechanical amplification exhibited by quiescent saccular hair bundles”, Y. Roongthumskul and D. Bozovic, *Biophys. J.*, **108**, 53-61 (2015).

“Phase-locked spiking of inner ear hair cells and the Driven Noisy Adler Equation”, R. Shlomovitz, Y. Roongthumskul, S. Ji, D. Bozovic, and R. Bruinsma, *Interface Focus*, **4**, 2014022-1-11 (2014).

“Cubic magnetic nanoparticles for ultrafast mechanical control of inner ear hair cells”, J. Lee, J. Kim, M. Levy, A. Kao, S. Noh, D. Bozovic, and J. Cheon, *ACS Nano*, **8**, 6590-6598 (2014).

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“Mechanical overstimulation of hair bundles: suppression and recovery of active motility”, A. Kao, S. W. F. Meenderink, and D. Bozovic, *PLOS One*, **8**, e58143-1-10 (2013).

“Mode-locked dynamics of hair cells of the inner ear”, L. M. Fredrickson-Hemsing, S. Ji, R. Bruinsma, and D. Bozovic, *Phys. Rev. E*, **86**, 21915-1-6 (2012).

“Coupling and elastic loading affect the active response by the inner ear hair cell bundles”, C. E. Strimbu, L. M. Fredrickson-Hemsing, and D. Bozovic, *PLOS One*, **7**, e33862-1-9 (2012).

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“Magnetic actuation of hair cells”, D. Rowland, Y. Roongthumskul, J. H. Lee, J. Cheon, and D. Bozovic, *App. Phys. Lett.*, **99**, 193701-193703 (2011).

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“Dynamic state and evoked motility in coupled hair bundles of the bullfrog sacculus”, C. E. Strimbu, A. Kao, J. Tokuda, D. Ramunno-Johnson, and D. Bozovic, *Hear. Res.*, **265**, 38-45 (2010).

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“Adaptive shift in the domain of negative stiffness during spontaneous oscillation by hair bundles from the internal ear”, L. Le Goff, D. Bozovic, and A. J. Hudspeth, *Proc. Natl. Acad. Sci.*, **102**, 16996-17001 (2005).

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"Defects and Electron Transport in Carbon Nanotubes", D. Bozovic, Ph. D. thesis, 2001.

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