

## Biography

Christian T. Herbst, born 1970, earned a master's degree in classical voice pedagogy from the Mozarteum University, Salzburg, Austria. During his career as voice pedagogue (Tölzer Knabenchor, amongst others), Christian took interest in the physics and physiology of the voice. After a one-year stay as visiting researcher at the Center for Computer Research in Music and Acoustics (CCRMA), Stanford University, he decided to put voice science at his future professional focus. In 2012 he received his PhD in Biophysics from the Department of Biophysics, University of Olomouc, Czech Republic, under the supervision of Dr. Jan Švec. Following a position as head of the Bioacoustics Laboratory, Department of Cognitive Biology, University Vienna, Christian was a post-doctoral researcher at the Voice Research Laboratory, Department of Biophysics, University of Olomouc. As of 2016 he works on the project "*Comparative Biomechanics of Mammalian Sound Production*", funded by an *APART* grant from the Austrian Academy of Sciences. He is an editorial board member the *Journal of Voice* and of *Logopedics, Phoniatrics and Vocology*.



Christian has published several prize-winning papers on laryngeal configurations in singing and on electroglottography (EGG), a non-invasive technique to gather physiological information of laryngeal dynamics during vocalization. He has invented the *phasegram*, a new method to visualize chaotic phenomena in non-linear systems, and *EGG wavegrams*, a technique for visualizing and analyzing vocal fold vibration properties. He has created a setup for excised larynx experiments at the Laboratory of Bio-Acoustics, Dept. of Cognitive Biology, University of Vienna. The gathered data are used to perform cross-species comparisons of physical sound production mechanisms in mammals. In this context Christian recently published a paper about the low-frequency physical sound production mechanisms in African elephants in the prestigious *Science* journal.

## Short Biography

Christian T. Herbst is an Austrian voice scientist. He studied voice pedagogy at Mozarteum University, Salzburg, Austria, and worked for several years as a voice pedagogue. Driven by his interest in the physics and the physiology of voice, he enrolled in a PhD programme in Biophysics at the University of Olomouc, Czech Republic, from which he graduated in 2012. He currently works on the project "*Comparative Biomechanics of Mammalian Sound Production*", funded by an *APART* grant from the Austrian Academy of Sciences. The focus of Christian's scientific work is both on singing voice physiology, and on the physics of voice production in mammals. He received several international scientific awards, and has published, among others, in the prestigious *Science* journal.

**Weblink:** <http://www.christian-herbst.org>