

# Curriculum vitae

## Contact data

Name: Dr. rer. nat. Marcel Jerome Beetz  
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## Jobs & Academic Education

Since December 2017 Postdoc in the lab of Dr. Basil el Jundi (University Wuerzburg):  
Working on the migration system of the monarch butterfly

PhD 2014 - 2017 Goethe-University Frankfurt, working group of Prof. Dr. Manfred Kössl (**Dr. rer nat: Summa cum laude**) **Thesis:** “Acoustic orientation in the dark: About how the brain processes naturalistic echolocation sequences in the fruit-eating bat *Carollia perspicillata*”

Master 2011-2013 Goethe-University Frankfurt (**MSc-interdisciplinary Neuroscience: 1.2**)  
**Thesis:** “Electrophysiological and morphological characterization of visually sensitive interneurons of the posterior protocerebrum from the desert locust *Schistocerca gregaria*”. Working group of Prof. Dr. Uwe Homberg, Marburg  
**Modules:** Neurophysiology and Behavior; Functional Anatomy of the Retina; Adult neurogenesis in Hippocampus; Auditory Neuroscience

August 2012-April 2013 Rearing solitary desert locusts in the working group of Prof. Dr. Homberg (Philipps University Marburg)

Bachelor 2008-2011 Philipps-University Marburg (**BSc-Biology: 1.3**)  
**Thesis:** “Topographic organization of the posterior optic tubercle in the desert locust *Schistocerca gregaria*”. Working group of Prof. Dr. Uwe Homberg, Marburg  
**Modules:** Animal physiology, Genetics, Cell Biology, Ecology, Microbiology, Plant physiology, Organismic biology

Senior classes 2005-2008 Alfred-Delp school, 64807 Dieburg (**Abitur: 1.5**)  
Comprehensive school 2001-2005 „Schule auf der Aue“, 64839 Münster  
Grammar school 1999 -2001 Friedrich-Dessauer grammar school, 63741 Aschaffenburg  
Elementary school 1995 -1999 Hefner-Alteneck-public school, 63743 Aschaffenburg

## Teaching & Supervision

2012-2013	Bachelor thesis of Florian Dersch “Standardization of the posterior optic tubercle in <i>Schistocerca gregaria</i> ” (Philipps-University Marburg)
2013	Bachelor thesis of Eugen Adam (Philipps-University Marburg)
April 2013-May 2013	Teaching assistant in behavioral experiments on <i>Gnathonemus petersii</i> (Philipps-University Marburg)
2016	Bachelor thesis of Sebastian Kordes “Neuronal tuning to natural echolocation sequences in the inferior colliculus of the fruit-eating bat <i>Carollia perspicillata</i> “ (Goethe-University Frankfurt)
2018	Practical course Neuroethology: Eleonora Rovegno: Monarch butterfly: Color learning and spatial memory

## Conference contributions

### Chair

July 20th, 2018	Facets of brain mechanisms underlying spatial orientation Symposium 11 at the 13th Congress of International Society for Neuroethology Australia
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### Talks

July 20th, 2018	Acoustic orientation in the dark: About how the brain processes natural echolocation sequences in the fruit-eating bat <i>Carollia Perspicillata</i> M. Jerome Beetz, Francisco García-Rosales, Manfred Kössl, Julio Hechavarría 13th Congress of International Society for Neuroethology Australia
July 15th, 2018	Minimizing signal interference in the fruit-eating bat <i>Carollia perspicillata</i> M. Jerome Beetz, Francisco García-Rosales, Manfred Kössl, Julio Hechavarría, International animal biosonar symposium, Australia
January 13th, 2018	Listening in the dark: About how the brain processes natural echolocation sequences in the fruit-eating bat <i>Carollia Perspicillata</i> M. Jerome Beetz, Francisco García-Rosales, Julio Hechavarría, Manfred Kössl Tagung deutscher Fledermausforscher 2018 („Meeting of the german bat researchers”)

- January 7<sup>th</sup>, 2017  
 Processing echolocation streams in the presence of masking noise  
 M. Jerome Beetz, Sebastian Kordes, Julio Hechavarría, Manfred Kössl  
 Tagung deutscher Fledermausforscher 2017 (“Meeting of the german bat researchers”)
- January 11<sup>th</sup>, 2015  
 Tracking natural echolocation streams in the dorsal auditory cortex of bats: a trade-off between temporally accurate tracking and sharp delay tuning  
 M. Jerome Beetz, Julio C. Hechavarría, Manfred Kössl  
 Tagung deutscher Fledermausforscher 2015 (“Biennial meeting of the german bat researchers”)
- March 18<sup>th</sup>, 2015  
 About how cortical neurons of bats cope with fast echolocation sequences: Multi-electrode and single-electrode recordings with natural echolocation stimuli.  
 M. Jerome Beetz, Julio C. Hechavarría, Manfred Kössl  
 11th Göttingen Meeting of the German Neuroscience Society
- Posters**
- 2017  
 Processing spatial depth in the auditory cortex of the fruit-eating bat *Carollia perspicillata* in the presence of natural acoustic jamming noise  
 M Jerome Beetz, Julio C Hechavarría, Manfred Kössl  
 12th Göttingen Meeting of the German Neuroscience Society
- 2016  
 Benefits of cortical forward suppression for coding natural echolocation streams in bats  
 4th Biennial Meeting in Oberwesel
- 2016  
 Precise target-distance coding during cortical suppression in echolocating bats  
 M. Jerome Beetz, Julio C. Hechavarría, Manfred Kössl  
 12th Congress of International Society for Neuroethology Uruguay
- 2013  
 Topographic organization of the posterior optic tubercle in the locust brain: Possible role in the generation of an internal sky compass  
 Jerome M. Beetz, Basil el Jundi, Stanley Heinze, Uwe Homberg  
 10th Göttingen Meeting of the German Neuroscience Society

## Guest Talks

- March 2013 Seminar talk in working group of Prof. Dr. Wolfgang Rössler  
University of Würzburg
- April 2013 Seminar talk in the vision group at Lund University

## Memberships

- since 2016 Member of the International Society for Neuroethology (ISN)
- since 2013 Member of the German Neuroscience Society (NWG)

## Stipends

- July 2018 Travel grant from the International Society for Neuroethology to attend the 13th International Congress of Neuroethology in Brisbane, Australia
- July 2018 Travel grant from DAAD (German Academic Exchange Service) to attend the 13th International Congress of Neuroethology in Brisbane, Australia
- June 2017 Stipend from Surdna Foundation Scholarship to attend the summer school “Neural systems and Behavior” in Woods Hole, MA, USA
- June 2017 Travel stipend from the Boeringer Ingelheim Fonds to attend the summer school “Neural systems and Behavior” in Woods Hole, MA, USA