

## Bernd Kuhn

Assistant Professor

Okinawa Institute of Science and Technology Graduate University

Telephone: +81-(0)98-966-8972

Fax: +81-(0)98-966-8640

E-mail: [bkuhn@oist.jp](mailto:bkuhn@oist.jp)

URL: <http://www.oist.jp>



### Academic background:

1996 Diploma in Physics, Ulm University, Germany

2001 Doctor rerum naturalium, Technical University Munich, Germany

### Professional career:

1995-2002: Student Researcher at the Max Planck Institute of Biochemistry, Martinsried, Germany

2002 -2004: Postdoctoral Fellow at the Max Planck Institute for Medical Research, Heidelberg, Germany

2004-2010: Postdoctoral Fellow at Princeton University, Princeton, NJ, U.S.A.

2010- : Group Leader/Faculty at the OIST Graduate University, Onna-son, Japan

### Research interests:

Neuroscience, Biophysics, Optics

### Main publications:

C.J. Roome, B. Kuhn (2014) Chronic cranial window with access port for repeated cellular manipulations, drug application, and electrophysiology. *Frontiers in Cellular Neuroscience* 8: 379

S. Augustinaite, B. Kuhn, P.J. Helm, P. Heggelund (2014) *NMDA spike/plateau potentials in dendrites of thalamocortical neurons*. Cover article in *Journal of Neuroscience* 34(33): 10892-10905

K.M. Seemann, B. Kuhn (2014) *Multi-photon excited luminescence of magnetic FePt core-shell nanoparticles*. *Biomedical Optics Express* 5(7): 2446-2457

K.M. Seemann, R. Kiefersauer, U. Jacob, B. Kuhn (2012) *Optical pH Detection within a Protein Crystal*. *J. Phys. Chem. B* 116(33): 9873-9881

B. Kuhn, I. Ozden, Y. Lampi, M.T. Hasan, S.S.-H. Wang (2012) *An amplified promoter system for targeted expression of calcium indicator proteins in the cerebellar cortex*. *Frontiers in Neuronal Circuits* 6: 49

T.M. Hoogland, B. Kuhn, W. Göbel, W. Huang, J. Nakai, F. Helmchen, S.J. Flint, and S.S.-H. Wang (2009) *Radially expanding transglial calcium waves in the intact cerebellum*. *PNAS* 106(9): 3496-3501

B. Kuhn, W. Denk, and R.M. Bruno (2008) *In vivo two-photon voltage-sensitive dye imaging reveals top-down control of cortical layers 1 and 2 during wakefulness*. *PNAS* 105(21): 7588-7593

B. Kuhn, P. Fromherz, and W. Denk (2004) *High sensitivity of Stark-shift voltage-sensing dyes by one- or two-photon excitation near the red spectral edge*. *Biophys. J.* 87:631-639

B. Kuhn and P. Fromherz (2003) *Anellated hemicyanine dyes in a neuron membrane: Molecular Stark effect and optical voltage recording*. *J. Phys. Chem. B* 107:7903-7913