

## *Curriculum Vitae*

**Robert Prevedel**      Group Leader, Dr.  
d.o.b. June 16th, 1981, in Leoben, Austria

### **University Education**

2009              PhD, Experimental Physics, University of Vienna  
2005              Diplom, Experimental Physics, University of Vienna

### **Scientific Career**

Since 2016      Group Leader, EMBL Heidelberg, Germany  
Since 2019      Group Leader, Molecular Medicine Partnership Unit, Heidelberg  
Since 2021      Investigator, Interdisciplinary Center for Neurosciences, Heidelberg  
2011 – 2016    Senior Post-Doctoral Fellow (Marie Curie), Research Institute of Molecular Pathology (IMP) and Max F. Perutz Laboratories GmbH (MFPL), Vienna, Austria.  
2013 – 2016    External Lecturer, FH IMC Krems, Krems, Austria.  
2009 – 2011    Post-Doctoral Fellow (Schrödinger), Institute for Quantum Computing, University of Waterloo, Canada.  
2006 – 2009    Research and Teaching Assistant, Faculty of Physics, University of Vienna, Austria.  
2005              Joint Study Fellow, Department of Physics, University of Queensland, Brisbane, Australia.  
2004 – 2005    Scientific Assistant, Institute for Experimental Physics, University of Vienna, Austria.

### **Awards and Honors**

2019              ERC Consolidator grant  
2014              FENS-IBRO Travel Award, from the FENS.  
2010              Finalist, DPG AMOP Dissertation Prize.  
2006, 2007      Merit Scholarship, from the University of Vienna.  
2006              KWA Scholarship, from the University of Vienna (Conference Grant).  
2006              International Communication Scholarship, from the ÖFG (Travel Grant).  
2004              Top-Stipendium Exchange Scholarship, from the State of Lower Austria.  
2003              Top-Stipendium Scholarship, from the State of Lower Austria.

### **Citation Record**

*Total citations: 4791; h-index:29; h-index since 2017: 23 (Google Scholar Aug 3<sup>rd</sup>, 2022)*

## Top-10 selected Publications

L. Streich, J. Boffi, L. Wang, K. Alhalaseh, M. Barbieri, R. Rehm, S. Deivasigamani, C. Gross, A. Agarwal, and **R. Prevedel**<sup>†</sup>. *High-resolution structural and functional deep brain imaging using adaptive optics three-photon microscopy*. **Nature Methods** **18**, 1253-1258 (2021). bioRxiv:2021.01.12.426323

N. Wagner\*, F. Beuttenmueller\*, N. Norlin, J. Gierten, J. Wittbrodt, M. Weigert, L. Hufnagel, **R. Prevedel**\*<sup>†</sup> and A. Kreshuk\*<sup>†</sup>. *Deep learning-enhanced light-field imaging with continuous validation*. **Nature Methods** **18**, 557–563 (2021). bioRxiv:228924; \*Equal contribution

G. Antonacci, T. Beck, A. Bilenca, J. Czarske, K. Elsayad<sup>†</sup>, J. Guck, K. Kim, B. Krug, F. Palombo, **R. Prevedel**<sup>†</sup>, and G. Scarcelli. *Recent progress and current opinions in Brillouin Microscopy for life science application* **Biophys. Rev.** **12**, 615–624 (2020). *Note: Authors were arranged alphabetically.*

**R. Prevedel**<sup>†</sup>, A. Diz-Muñoz<sup>†</sup>, G. Ruocco and G. Antonacci. *Brillouin microscopy - an emerging tool for mechanobiology* **Nature Methods** **16**, 969–977 (2019). ArXiv:1901.02006

N. Wagner\*, N. Norlin\*, J. Gierten, G. de Medeiros, B. Balázs, J. Wittbrodt, L. Hufnagel<sup>†</sup> and **R. Prevedel**<sup>†</sup>. *Instantaneous isotropic volumetric imaging of fast biological processes* **Nature Methods** **16**, 497–500 (2019). bioRxiv:459370.

C. Bevilacqua\*, H. Sánchez-Iranzo\*, D. Richter, A. Diz-Muñoz and **R. Prevedel**<sup>†</sup>. *Imaging mechanical properties of sub-micron ECM in live zebrafish using Brillouin microscopy* **Biomed. Opt. Exp.** **10**, 1420-1431 (2019). bioRxiv:491803. \*Joint first authors

**R. Prevedel**, A.J. Verhoef, A.J. Pernia-Andrade, S. Weisenburger, B.S. Huang, T. Nöbauer, A. Fernandez, J.E. Delcour, P. Golshani, A. Baltuska and A. Vaziri. *Fast volumetric calcium imaging across multiple cortical layers using sculpted light*. **Nature Methods** **13**, 1021–1028 (2016).

**R. Prevedel**\*, Y.-G. Yoon\*, M. Hoffmann, N. Pak, G. Wetzstein, S. Kato, T. Schrödel, R. Raskar, M. Zimmer, E.S. Boyden, and A. Vaziri. *Simultaneous whole-animal 3D-imaging of neuronal activity using light field microscopy*. **Nature Methods** **11**, 727–730 (2014); ArXiv:1401.5333; selected for Cover

T. Schrödel\*, **R. Prevedel**\*, K. Aumayr, M. Zimmer and A. Vaziri. *Brain- wide 3D imaging of neuronal activity in *Caenorhabditis elegans* with sculpted light*. **Nature Methods** **10**, 1013 (2013) ArXiv:1406.1603 \*Equal contribution

**R. Prevedel**, P. Walther, F. Tiefenbacher, P. Boehi, R. Kaltenbaek, T. Jennewein and A. Zeilinger. *High-speed linear optics quantum computing using active feed-forward*. **Nature** **445**, 65-69 (2007) ArXiv:quant-ph/0701017