

Publikationen 2015

Professor Theodor W. HÄNSCH

f. Jahrbuch

Bayerische Akademie der Wissenschaften

1. **Precision Spectroscopy of 2S-nP Transitions in Atomic Hydrogen for a new Determination of the Rydberg Constant and the Proton Charge Radius** (Beyer, A. L. Maisenbacher, K. Khabarova, A. Matveev, R. Pohl, Th. Udem, T. W. Hänsch, and Nikolai Kolachevsky), Physics Scripta T. 165 014030, 9 pp (2015)
2. **Transverse-mode Coupling and Diffraction Loss in Tunable Fabry-Pérot Microcavities** (Benedikter, J., Th. Hümmer, M. Mader, B. Schlederer, J. Reichel, T.W. Hänsch, and D. Hunger), New J. of Phys. 17, 053051 (2015)
3. **Improved X-Ray Detection and Particle Identification with Avalanche Photodiodes** (Diepold, M., L.M.P. Fernandes, J. Machado, P. Amaro, M. Abdou-Ahmed, F.D. Amaro, A. Antognini, F. Biraben, T.-L. Chen, J.M.R. Cardoso, D. S. Covita, A. J. Dax, B. Franke, S. Galtier, A.L. Gouvea, J. Götzfried, Th. Graf, T. W. Hänsch, M. Hildebrand, P. Indelicato, L. Julien, K. Kirch, A. Knecht, F. Kottmann, J.-J. Krauth, Y.-W. Liu, J.C.M.B. Monteiro, F. Mulhauser, B. Naar, T. Nebel, F. Nez, P. Rabinowitz, J. P. Santos, J.M.F. dos Santos, K. Schuhmann, C.I. Szabo, D. Taqqu, J.F.C.A. Veloso, A. Voss, B. Weichelt, and R. Pohl) Rev. Sc. Instrum. 86, 053102-1-6 AIP Publishing LLC (2015)
4. **Characterization of a 450 km Baseline GPS Carrier-Phase Link using an Optical Fiber Link** (S. Droste, Ch. Grebing, J. Leute, S.M.F. Raupach, A. Matveev, T. W. Hänsch, A. Bauch, R. Holzwarth, and G. Grosche), New J. of Physics 17, 08304 (2015)
5. **Optical Frequency Dissemination for Metrology Applications** (S. Droste, Th. Udem, R. Holzwarth, and T. W. Hänsch), C. R. Physique 16, 524-530 (2015)
6. **Cavity-enhanced Raman Microscopy of Individual Carbon Nanotubes** (Th. Huemmer, J. Noe, M. S. Hofmann, T.W. Haensch, A. Hoegele, and D. Hunger), accepted August 2015.
7. **An Octave Spanning Mid-infrared Frequency Comb Generated in a Silicon Nanophotonic Wire Waveguide** (B. Kuyken, T. Ideguchi, S. Holzner, M. Yan, T. W. Hänsch, J. v. Campenhout, P. Verheyen, S. Coen, F. Leo, R. Baets, G. Roelkens, and N. Picqué), Nature Communications/ DOI: 10.1038/ncomms7310 (2015)

8. **A Scanning Cavity Microscope** (M. Mader, J. Reichel, T. W. Hänsch, and D. Hunger), Nature Communications, DOI: 10.1038/ncomms8249 (2015)
9. **Comb-Calibrated Solar Spectroscopy through a Multiplexed Single-Mode Fiber Channel** (R.A. Probst, L. Wang, H.-P. Doerr, T. Steinmetz, T. J. Kentischer, G. Zhao, T. W. Hänsch, Th. Udem, R. Holzwarth, and W. Schmidt), New J. of Physics 17, 023048, p. 1-13 (2015)
10. **Spectrally Flattened, Broadband Astronomical Frequency Combs** (R. A. Probst, Y. Wu, T. Steinmetz, S. P. Stark, T. W. Hänsch, Th. Udem, R. Holzwarth), CLEO, OSA 2015.
11. **Thin-Disk Laser Pump Schemes for Large Number of Passes and Moderate Pump Source Quality** (K. Schumann, T. W. Hänsch, K. Kirch, A. Knecht, P. Kottmann, F. Nez, R. Pohl, D. Taqqu, and A. Antognini) 54, 9400-94007 (2015)
12. **Thin-Disk Multipass Amplifier** (K. Schumann, M.A. Ahmed, A. Antognini, T. Graf, T. W. Hänsch, K. Kirch, F. Kottmann, R. Pohl, D. Taqqu, A. Voss, B. Weichelt), CREMA Coll., Ed. Clarkson WA, Solid State Lasers XXIV, Technology and Devices San Francisco, Proceedings of SPIE 934293420 (2015)
13. **Frequency-agile Dual-Comb Spectroscopy** (G. Millot, S. Pitois, M. Yan, T. Hovhanisyan, A. Bendahmane, T. W. Hänsch, and N. Picqué), Nature Photonics, DOI: 10.1038/NPhoton.2015.2050, accepted for publication, December 2015.