

# Thomas Udem, Publications

180. **Toward XUV Frequency Comb Spectroscopy of the 1S-2S Transition in He<sup>+</sup>**  
Jorge Moreno, Fabian Schmid, Johannes Weitenberg, Savel G. Karshenboim, Theodor W. Hänsch, Thomas Udem and Akira Ozawa, Eur. Phys. J. D 77, 67 (2023).
179. **Number-resolved Detection of dark Ions in Coulomb Crystals**  
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178. **Das Atom der Erkenntnis**  
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177. **Very large bandwidth lasers**  
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176. **Frequenzkamm-Spektroskopie am Wasserstoffatom**  
Thomas Udem, Alexey Grinin, Physik in unserer Zeit, 52, 58 (2021).
175. **Improved active Fiber-based Retroreflector with Intensity Stabilization and a Polarization Monitor for the near UV**  
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174. **Measuring and Characterizing the Line Profile of HARPS with a Laser Frequency Comb**  
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173. **Two-photon Frequency Comb Spectroscopy of atomic Hydrogen**  
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172. **Optical Frequency Combs: Coherently uniting the electromagnetic Spectrum**  
Scott A. Diddams, Kerry Vahala, Thomas Udem, Science 269, 267 (2020).
171. **A crucial Test for astronomical Spectrograph Calibration with Frequency Combs**  
Rafael A. Probst, Dinko Milaković, Borja Toledo-Padrón, Gaspare Lo Curto, Gerardo Avila, Anna Brucalassi, Bruno L. Canto Martins, Izan de Castro Leão, Massimiliano Esposito, Jonay I. González Hernández, Frank Grupp, Theodor W. Hänsch, Hanna Kellermann, Florian Kerber, Olaf Mandel, Antonio Manescau, Eszter Pozna, Rafael Rebolo, José R. de Medeiros, Tilo Steinmetz, Alejandro Suárez Mascareño, Thomas Udem, Josefina Urrutia, Yuanjie Wu, Luca Pasquini and Ronald Holzwarth, Nature Astronomy 4 (2020)
170. **The Solar gravitational Redshift from HARPS-LFC Moon Spectra. A Test of the General Theory of Relativity**  
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169. **Real-time Phase Tracking for wide-band optical Frequency Measurements at the 20th Decimal Place**  
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167. **Quantum Interference Line Shifts of broad Dipole-Allowed Transitions**  
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164. **Quantum Electrodynamics and the Proton Size**  
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156. **Active Fiber-Based Retroreflector providing phase-retracing anti-parallel Laser Beams for precision Spectroscopy**  
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