Earlier Publications

from projects at

Max-Planck Institute for Quantum Optics Garching
- One-Atom Maser and Hydrogen Spectroscopy -

and

Laboratoire Kaster Brossel, Ecole Normale Supperieure, Paris
- Cavity QED with Rydberg atoms -

16) „Quantum Rabi Oscillations: A Direct Test of Field Quantisation in a Cavity“, M. Brune, F. Schmidt-Kaler, A. Maali, J. Deyer, E. Hagley, J. M. Raimond, S. Haroche, Phys. Rev. Lett. **76** (1996) 1800.

15) „Precision Measurement of the 1S Ground-state Lamb shift in Atomic Hydrogen and Deuterium by Frequency Comparison“, M. Weitz, A. Huber, F. Schmidt-Kaler, D. Leibfried, W. Vassen, C. Zimmermann, K. Pachucki, T. W. Hänsch, Phys. Rev. A **52** (1995) 2664.

14) „High-resolution Spectroscopy of the 1S-2S Transition of Atomic Hydrogen and Deuterium“, F. Schmidt-Kaler, D. Leibfried, S. Seel, C. Zimmermann, W. König, M. Weitz, T. W. Hänsch, Phys. Rev. A **51** (1995) 2789.

13) „Measuring and Manipulating Quantum Fields in a Cavity by Atom Interferometry“, J. M. Raimond, M. Brune, S. Haroche, F. Schmidt-Kaler, L. Davidovich, and N. Zagury, Atomic physics 13, ICAP conference proceedings 1994, AIP NewYork.

12) „From Lamb Shift to Light Shifts: Vacuum and Subphoton Cavity Fields Measured by Atomic Phase Sensitive Detection“, M. Brune, P. Nussenzveig, F. Schmidt-Kaler, F. Bernadot, A. Maali, J. M. Raimond, S. Haroche, Phys. Rev. Lett. **72** (1994) 3339.

11) „High Resolution Spectroscopy of Atomic Hydrogen“, C. Zimmermann, A. Huber, W. König, D. Leibfried, F. Schmidt-Kaler, M. Weitz und T. W. Hänsch, in Particle Astrophysics, Atomic Physics and Gravitation, edited by J. Tran Thanh Van, G. Fontaine and E. Hinds, Edition Frontieres, France, 1994, p. 369.

10) „Frequency Stabilized Ti:Sapphire Laser for High Resolution Spectroscopy of Atomic Hydrogen“, M. Weitz, F. Schmidt-Kaler und T. W. Hänsch, in Solid State Lasers, edited by M. Inguscio and R. Wallenstein, Plenum Press, New York, 1993.

9) „Precise Measurement of the Isotope Shift of the 1S-2S Transition of Atomic Hydrogen and Deuterium“, F. Schmidt-Kaler, D. Leibfried, M. Weitz, T. W. Hänsch, Phys. Rev. Lett. **70** (1993) 2261.

8) „Phase-Matched Electrooptic Modulator at 84 GHz for Blue Light: Theory,Experimental Test and Applications“, D. Leibfried, F. Schmidt-Kaler, M. Weitz, T. W. Hänsch, Appl. Phys. B **56** (1993) 65.

7) „Absolute Frequency Measurement of the Hydrogen 1S-2S Transition and a New Value of the Rydberg Constant“, T. Andrae, W. König, R. Wynands, D. Leibfried, F. Schmidt-Kaler, C. Zimmermann, D. Meschede, T. W. Hänsch, Phys. Rev. Lett. **69** (1992) 1923.

6) „Precise Optical Lamb Shift Measurements in Atomic Hydrogen“, M. Weitz, F. Schmidt-Kaler, T. W. Hänsch, Phys. Rev. Lett. **68** (1992) 1120.

5) „High Resolution Spectroscopy of the 1S-2S Transition in Atomic Hydrogen“, F. Schmidt-Kaler, T. Andrae, W. König, D. Leibfried, L. Ricci, M. Weitz, R. Wynands, C. Zimmermann and T. W. Hänsch, Atomic physics 12, ICAP conference proceedings 1992, AIP NewYork.

4) „High Power UV Source with Extreme Frequency Stability“, R. Kallenbach, F. Schmidt-Kaler, M. Weitz, C. Zimmermann, T. W. Hänsch, Opt. Comm. **81** (1991) 63.

3) „High Resolution Spectroscopy of the Hydrogen 1S-2S Transition in an Atomic Beam“,
T. Andrae, W. C. Zimmermann, R. Kallenbach, W. Vassen, F. Schmidt-Kaler, M. Weitz, D. Leibfried and T. W. Hänsch, Atomic physics 11, ICAP conference proceedings 1990, AIP NewYork.

2) „Nonclassical Radiation in the One-Atom Maser“
G. Rempe, G. Bapst, F. Schmidt-Kaler, H. Walther, in Coherence and Quantum Optics VI, edited by J. H. Eberly et. al., Plenum Press, New York, 1990.

1) „Observation of sub-Poissonian Photon Statistics in a Micromaser“
G. Rempe, F. Schmidt-Kaler, H. Walther, Phys. Rev. Lett. **64** (1990) 2783.