

Publication list

Journal papers and book chapters

1. C. Jirauschek, A. Matyas, P. Lugli, and M.-C. Amann, “Monte Carlo study of terahertz difference frequency generation in quantum cascade lasers,” *Opt. Express* **21**, 6180–6185 (2013).
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3. M. Bareiß, D. Kälblein, C. Jirauschek, A. Exner, I. Pavlichenko, B. Lotsch, U. Zschieschang, H. Klauk, G. Scarpa, B. Fabel, W. Porod, and P. Lugli, “Ultra-thin titanium oxide,” *Appl. Phys. Lett.* **101**(8), 083113 (2012).
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5. M. Bareiß, F. Ante, D. Kälblein, G. Jegert, C. Jirauschek, G. Scarpa, B. Fabel, E. M. Nelson, G. Timp, U. Zschieschang, H. Klauk, W. Porod, and P. Lugli, “High-yield transfer printing of metal–insulator–metal nanodiodes,” *ACS Nano* **6**(3), 2853–2859 (2012).
6. S. Todor, B. Biedermann, R. Huber, and C. Jirauschek, “Balance of Physical Effects Causing Stationary Operation of Fourier Domain Mode-Locked Lasers,” *J. Opt. Soc. Am. B* **29**, 656–664 (2012).
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9. C. Jirauschek and F. Ö. Ilday, “Semianalytic theory of self-similar optical propagation and mode locking using a shape-adaptive model pulse,” *Phys. Rev. A* **83**, 063809 (2011).
10. S. Todor, B. Biedermann, W. Wieser, R. Huber, and C. Jirauschek, “Instantaneous lineshape analysis of Fourier domain mode-locked lasers,” *Opt. Express* **19**, 8802–8807 (2011).
11. A. Mátyás, C. Jirauschek, F. Peretti, P. Lugli, and G. Csaba, “Linear circuit models for on-chip quantum electrodynamics,” *IEEE Trans. Microwave Theory Tech.* **59**, 65–71 (2011).
12. C. Jirauschek, “Monte Carlo study of intrinsic linewidths in terahertz quantum cascade lasers,” *Opt. Express* **18**, 25922–25927 (2010).
13. V.-M. Gkortsas, C. Wang, L. Kuznetsova, L. Diehl, A. Gordon, C. Jirauschek, M. A. Belkin, A. Belyanin, F. Capasso, and F. X. Kärtner, “Dynamics of actively mode-locked quantum cascade lasers,” *Opt. Express* **18**, 13616–13630 (2010).
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21. C. Jirauschek, "Accuracy of transfer matrix approaches for solving the effective mass Schrödinger equation," *IEEE J. Quantum Electron.* **45**, 1059–1067 (2009).
22. C. Jirauschek and P. Lugli, "Monte-Carlo-based spectral gain analysis for terahertz quantum cascade lasers," *J. Appl. Phys.* **105**, 123102 (2009).
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42. C. Jirauschek and P. Russer, “Hamiltonian Formulations for Lossy Nonlinear Quantum Circuits,” International Conference on Nonlinear Dynamics of Electronic Systems (NDES 2012), Wolfenbüttel, Germany, July 11–13 2012 (IEEE Xplore, VDE Conference Proceedings: *Nonlinear Dynamics of Electronic Systems, Proceedings of NDES 2012*, ISBN 978-3-8007-3444-3).
43. P. Lugli, A. Mátyás, and C. Jirauschek, “Monte Carlo Simulation of THz Quantum Cascade Lasers,” IEEE MTT-S International Microwave Symposium, Talk WME-6, Montréal, Canada, June 17–22 2012.
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53. S. Todor, B. Biedermann, R. Huber, and C. Jirauschek, “Analysis of the optical dynamics in Fourier domain mode-locked lasers,” OSA Advanced Photonics Congress – Optical Sensors (Sensors 2010), Talk SWC4, Karlsruhe, Germany, June 21–24 2010 (in *Optical Sensors*, OSA Technical Digest (CD) (Optical Society of America, 2010)).
54. S. Todor, C. Jirauschek, B. Biedermann, and R. Huber, “Linewidth optimization of Fourier domain mode-locked lasers,” IEEE/OSA Conference on Lasers and Electro-Optics (CLEO 2010), Talk CMW7, San Jose (CA), USA, May 16–21 2010 (IEEE Conference Proceedings: 2010 Conference on Lasers and Electro-Optics (CLEO) and Quantum Electronics and Laser Science Conference (QELS), ISBN 978-1-55752-890-2).
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Patents

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