

Publikationsliste Prof. Dr.-Ing. Sebastian Hoffmann

Stand: Dezember 2011

1. Ali Al-Bermani, Christian Wördehoff, Sebastian Hoffmann, Ulrich Rückert and Reinhold Noé, "Nonlinear Effect of IQ Modulator in a Realtime Synchronous 16-QAM Transmission System", IEEE Photonics 2011 Conference (IPC11), formerly (LEOS), 9 - 13 October 2011, Arlington, Virginia, USA
2. M. El-Darawy, T. Pfau, C. Wördehoff, S. Hoffmann, R. Noé, "Realtime QPSK Transmission with an Integrated Coherent Optical Receiver Frontend" Proc. Summer Topicals 2011, July 18-20, 2011, MC3.3, Montreal, Quebec, Canada
3. Ali Al-Bermani, Christian Wördehoff, Sebastian Hoffmann, Timo Pfau, Ulrich Rückert and Reinhold Noé, Synchronous Demodulation of Coherent 16-QAM with Feedforward Carrier Recovery, IEICE Transactions on Communications, E94.B , No. 7, July 2011, Japan (invited)
4. K. Puntsri, S. Hoffmann, S. Hussin, A. Al-Bermani and R. Noe, "A Low Complexity and High Accuracy Frame Synchronization for Optical OFDM Systems," in Proc. Conf. 16th Opto-Electronics and Communications Conference OECC 2011, 4-8 July 2011, Kaohsiung, Taiwan
5. A. Al-Bermani, C. Wördehoff, S. Hoffmann, U. Rückert, R. Noé, Synchronous 16-QAM Transmission in a FPGA-Based Coherent Receiver with Different Phase Estimation Filter Lengths, 12. ITG-Fachtagung "Photonische Netze", 2.-3. May 2011 Leipzig, ITG-Fachbericht 228, ISBN 978-3-4007-3346-0, Germany
6. Ali Al-Bermani, Christian Wördehoff, Sebastian Hoffmann, Kidsanapong Puntsri, Ulrich Rückert and Reinhold Noé, Realtime Implementation of Square 16-QAM Transmission System, Proc. SPIE 8065, 806519 (2011), 28 March 2011, Strasbourg, France
7. S. Hoffmann, A. Al-Bermani, C. Wördehoff, U. Rückert, R. Noe, Kohärente optische 16-QAM-Übertragung mit ressourceneffizienter Vorwärts-Phasenschätzung, Workshop der VDE ITG-Fachgruppe 5.3.1, 14. Februar 2011, Technische Universität Dortmund
8. Reinhold Noé, Sebastian Hoffmann, Christian Wördehoff, Ali Al-Bermani and Mohamed El-Darawy, Advances in Coherent Optical Modems and 16-QAM Transmission with Feedforward Carrier Recovery, Proc. SPIE 7960, 79600L (2011), 25 January 2011, San Francisco, California, USA
9. Ali Al-Bermani, Christian Wördehoff, Sebastian Hoffmann, David Sandel, Ulrich Rückert, and Reinhold Noé, Real-Time Phase-Noise-Tolerant 2.5-Gb/s Synchronous 16-QAM Transmission, IEEE PHOTONICS TECHNOLOGY LETTERS, VOL. 22, NO. 24, pp. 1823-1825, DECEMBER 15, 2010
10. R. Noe, S. Hoffmann, Real-Time Digital Signal Processing for QPSK Transmission, Invited Tutorial OECC 2010, 5.-9. Juli 2010, Sapporo, Japan (7B4-1)
11. A. Al-Bermani, R. Noé, S. Hoffmann, C. Wördehoff, U. Rückert, T. Pfau, Implementation of Coherent 16-QAM Digital Receiver with Feedforward Carrier Recovery, in Proc. Signal Processing in Photonic Communications (SPPCom), Optical Society of America, SPWB5, 21-24 June 2010, Karlsruhe, Germany

12. R. Noé, S. Hoffmann, C. Wördehoff, M. El-Darawy, Digital Coherent Transmission Systems, in Proc. Signal Processing in Photonic Communications (SPPCom), Optical Society of America, Tutorial SPWA1, 21-24 June 2010, Karlsruhe, Germany
13. S. Hoffmann, C. Wördehoff, A. Al-Bermani, M. El-Darawy, K. Puntsri, U. Rückert, R. Noé, Hardware-effiziente Phasenschätzung für kohärenten QAM-Empfang mit regulären Stern-Konstellationen, 11. ITG-Fachtagung "Photonische Netze", 3.-4. May 2010 Leipzig, Germany, ITG-Fachbericht 222, pp. 221-224
14. A. Al-Bermani, C. Wördehoff, T. Pfau, S. Hoffmann, U. Rückert, R. Noé, First Realtime Synchronous 16-QAM Transmission with Coherent Digital Receiver, 11. ITG-Fachtagung "Photonische Netze", 3.-4. May 2010 Leipzig, Germany, ITG-Fachbericht 222, pp. 153-156
15. R. Noé, T. Pfau, M. El-Darawy, S. Hoffmann, Electronic Polarization Control Algorithms for Coherent Optical Transmission, IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS, VOL. 16, NO. 5, pp. 1193-1200, SEPT./OCT. 2010
16. S. Hoffmann, C. Wördehoff, A. Al-Bermani, M. El-Darawy, K. Puntsri, U. Rückert, R. Noe, Hardware-Efficient Phase Estimation for Digital Coherent Transmission with Star Constellation QAM, IEEE Photonics Journal, Vol. 2 , No. 2, pp. 174 - 180 (invited)
17. S. Hoffmann, V. Herath, M. El-Darawy, T. Pfau, C. Wördehoff, R. Peveling, U. Rückert, R. Noé, Multiplier-Free Realtime Phase Tracking in Digital Synchronous QPSK Receiver for Coherent Optical Detection ICIIS2009, CIE3-1, 28.-31. Dec. 2009, University of Perydenia, Sri Lanka
18. S. Hoffmann, M. El-Darawy, T. Pfau, C. Wördehoff, R. Peveling, U. Rückert, R. Noé , Realtime Phase Tracking with Multiplier-Free Barycenter Approximation in Digital Synchronous QPSK Receiver for Coherent Detection , LEOS Annual Meeting 2009, The 2, Belek-Antalya, Turkey, 4.-8. October 2009
19. Reinhold Noé, Ulrich Rückert, Sebastian Hoffmann, Timo Pfau, Ralf Peveling , Realization of Digital Coherent Receivers, LEOS Annual Meeting 2009, WE 1 (invited) , Belek-Antalya, Turkey, 4.-8. October 2009
20. R. Noé, U. Rückert, S. Hoffmann, R. Peveling, T. Pfau, M. El-Darawy, A. Al-Bermani, Real-time Implementation of Digital Coherent Detection , Tu5.4.3, ECOC 2009, Wien (invited)
21. M. El-Darawy, T. Pfau, S. Hoffmann, R. Noé, Differential Phase Compensated Constant Modulus Algorithm for Phase Noise Tolerant Coherent Optical Transmission, in Proc. IEEE-LEOS 2009, TuC3.3, San Diego, USA, 20.-22. July 2009
22. M. El-Darawy, V. Herath, T. Pfau, S. Hoffmann, R. Peveling, O. Adamczyk, Ch. Wördehoff, U. Rückert, R. Noé, Analysis of an ASIC-based Coherent Polarization-Multiplexed QPSK Receiver and Different Receiver Frontends, 10. ITG-Fachtagung "Photonische Netze", 4.-5. May 2009 Leipzig, Germany
23. T. Pfau, S. Hoffmann, R. Noé, Hardware-Efficient Coherent Digital Receiver Concept With Feedforward Carrier Recovery for M-QAM Constellations, IEEE Journal of Lightwave Technology, Vol. 27, No. 8, pp. 989-999, 15. April, 2009
24. T. Pfau, R. Peveling, V. Herath, S. Hoffmann, C. Wördehoff, O. Adamczyk, M. Pormann, R. Noé, Towards Real-Time Implementation of Coherent Optical Communication, Proc. OFC/NFOEC 2009, March 22-26, 2009, (invited), San Diego, CA, USA

25. V. Herath, R. Peveling, T. Pfau, O. Adamczyk, S. Hoffmann, C. Wördehoff, M. Porrmann, R. Noé, Chipset for a Coherent Polarization-Multiplexed QPSK Receiver, Proc. OFC/NFOEC 2009, March 22-26, 2009, OThE2, San Diego, CA, USA
26. S. Hoffmann, R. Peveling, T. Pfau, O. Adamczyk, R. Eickhoff, R. Noé, Multiplier-free Realtime Phase Tracking for Coherent QPSK Receivers, IEEE Photonics Technology Letters, Vol. 21, Feb. 1, 2009, pp. 137-139
27. M. El-Darawy, T. Pfau, S. Hoffmann, R. Peveling, C. Wördehoff, B. Koch, M. Porrmann, O. Adamczyk, R. Noé, Fast Adaptive Polarization and PDL Tracking in a Realtime FPGA Based Coherent QPSK PolDM-QPSK Receiver, IEEE Photonics Technology Letters, Vol. 20, Issue 21, Nov.1, 2008, pp.1796 - 1798
28. M. El-Darawy, T. Pfau, C. Wördehoff, B. Koch, S. Hoffmann, R. Peveling, M. Porrmann, R. Noé, Realtime 40 krad/s Polarization Tracking with 6 dB PDL in Digital Synchronous Polarization-Multiplexed QPSK Receiver, in Proc. ECOC 2008, We.3.E.4, 21-25 Sept., 2008, Brussels, Belgium
29. S. Hoffmann, S. Bhandare, T. Pfau, O. Adamczyk, C. Wördehoff, R. Peveling, M. Porrmann, R. Noe, Frequency and Phase Estimation for Coherent QPSK Transmission With Unlocked DFB Lasers, IEEE Photonics Technology Letters, Vol. 20, Sept. 15, 2008, pp. 1569 - 1571
30. S. Hoffmann, T. Pfau, O. Adamczyk, C. Wördehoff, R. Peveling, M. Porrmann, R. Noé, S. Bhandare, Frequency Estimation and Compensation for Coherent QPSK Transmission with DFB Lasers, in Proc. OSA Topical Meeting Coherent Optical Technologies and Applications (COTA), July 13-16, 2008, CWB4, Boston, MA, USA
31. T. Pfau, M. El-Darawy, C. Wördehoff, R. Peveling, S. Hoffmann, B. Koch, O. Adamczyk, M. Porrmann, R. Noé, 32-krad/s Polarization and 3-dB PDL Tracking in a Realtime Digital Coherent Polarization-Multiplexed QPSK Receiver, in Proc. IEEE-LEOS Summer Topicals 2008, MC2.4, ISBN: 978-1-4244-1926-5, July 21-23, 2008, Acapulco, Mexico
32. R. Noé, S. Hoffmann, T. Pfau, O. Adamczyk, V. Herath, R. Peveling, M. Porrmann, Realtime Digital Polarization and Carrier Recovery in a Polarization-Multiplexed Optical QPSK Transmission, in Proc. IEEE-LEOS Summer Topicals 2008, MC2.1 (invited), ISBN: 978-1-4244-1926-5, July 21-23, 2008, Acapulco, Mexico
33. S. Hoffmann, T. Pfau, R. Peveling, S. Bhandare, O. Adamczyk, M. Porrmann, R. Noé, Hardwareeffiziente Frequenz- und Phasenschätzung für QPSK-Intradynempfang, Workshop der VDE-ITG-FG 5.3.1, Juni 12-13, 2008, Kiel, Germany
34. T. Pfau, Ch. Wördehoff, R. Peveling, S.K. Ibrahim, S. Hoffmann, O. Adamczyk, S. Bhandare, M. Porrmann, R. Noé, A. Koslovsky, Y. Achiam, D. Schlieder, N. Grossard, J. Hauden, H. Porte, Ultra-Fast Adaptive Digital Polarization Control in a Realtime Coherent Polarization-Multiplexed QPSK Receiver, in Proc. OFC/NFOEC 2008, Feb. 24-28, 2008, OTuM3, San Diego, CA, USA
35. T. Pfau, S. Hoffmann, O. Adamczyk, R. Peveling, V. Herath, M. Porrmann, R. Noé, Coherent optical communication: Towards realtime systems at 40 Gbit/s and beyond, Opt. Express, Vol. 16, 866-872 (2008)
36. T. Pfau, R. Peveling, F. Samson, J. Romoth, S. Hoffmann, S. Bhandare, S. Ibrahim, D. Sandel, O. Adamczyk, M. Porrmann, R. Noé, J. Hauden, N. Grossard, H. Porte, D. Schlieder, A. Koslovsky, Y. Benarush, Y. Achiam, "Polarization-Multiplexed 2.8 Gbit/s Synchronous QPSK Transmission with Real-Time Digital Polarization Tracking", Proc. ECOC 2007, Berlin, 8.3.3, 16-20 Sept. 2007

37. T. Pfau, R. Peveling, H. Porte, Y. Achiam, S. Hoffmann, S. K. Ibrahim, O. Adamczyk, S. Bhandare, D. Sandel, M. Porrman, R. Noé, „Coherent Digital Polarization Diversity Receiver for Real-Time Polarization-Multiplexed QPSK Transmission at 2.8 Gbit/s“, IEEE Photonics Technology Letters, 2007, Vol. 19, 2007, No. 24, pp. 1988 - 1990
38. R. Noé, T. Pfau, O. Adamczyk, Ralf Peveling, Vijitha Herath, Sebastian Hoffmann, Mario Porrman, Selwan K. Ibrahim and Suhas Bhandare, “Real-time Digital Carrier & Data Recovery for a Synchronous Optical Quadrature Phase Shift Keying Transmission System“, Proc. IEEE-IMS2007, TH2E-01 (invited), June 3-8, 2007, Honolulu, HI, USA.
39. T. Pfau, R. Peveling, S. Hoffmann, S. Bhandare, S. Ibrahim, D. Sandel, O. Adamczyk, M. Porrman, R. Noé, Y. Achiam, D. Schlieder, A. Koslovsky, Y. Benarush, J. Hauden, N. Grossard, H. Porte, „PDL-Tolerant Real-time Polarization-Multiplexed QPSK Transmission with Digital Coherent Polarization Diversity Receiver“, Proc. IEEE-IMS2007, June 3-8, 2007, Honolulu, HI, USA.
40. S. Hoffmann, T. Pfau, R. Peveling, S. Bhandare, O. Adamczyk, M. Porrman, R. Noé, PLL-free coherent optical QPSK transmission with realtime digital phase estimation using DFB lasers (Workshop der ITG Fachgruppe 5.3.1, Modellierung photonischer Komponenten und Systeme, 12./13. Feb. 2007, Lehrstuhl für Nachrichtentechnik, TU München, Germany)
41. T. Pfau, S. Hoffmann, R. Peveling, S. Bhandare, O. Adamczyk, M. Porrman, R. Noé, Y. Achiam, 1.6 Gbit/s Real-Time Synchronous QPSK Transmission with Standard DFB Lasers, Proc. 32nd European Conference on Optical Communication (ECOC 2006), Cannes, France, 24-28 September 2006, Mo4.2.6.
42. T. Pfau, S. Hoffmann, R. Peveling, S. Bhandare, S. K. Ibrahim, O. Adamczyk, M. Porrman, R. Noé, Y. Achiam, First Real-Time Data Recovery for Synchronous QPSK Transmission with Standard DFB Lasers, IEEE Photonics Technology Letters, vol. 18, 2006, pp. 1907-1909.
43. T. Pfau, S. Hoffmann, R. Peveling, S. Bhandare, S. K. Ibrahim, O. Adamczyk, M. Porrman, R. Noé, Y. Achiam, Real-time Synchronous QPSK Transmission with Standard DFB Lasers and Digital I&Q Receiver , CThC5, Coherent Optical Technologies and Applications (COTA) Topical Meeting, OSA, Whistler, BC, Canada, June 28-30, 2006.
44. S. Hoffmann, T. Pfau, O. Adamczyk, R. Peveling, M. Porrman, R. Noé, Hardware-Efficient and Phase Noise Tolerant Digital Synchronous QPSK Receiver Concept , CThC6, Coherent Optical Technologies and Applications (COTA) Topical Meeting, OSA, Whistler, BC, Canada, June 28-30, 2006.
45. S. Hoffmann, A. Thiede, P. Tommasino, A. Trifiletti, A. Vannucci: Measurement-Based Models of a 40 Gb/s Modulator and It's Electrical Driver for Transmitter Design IEE Proc.-Circuits Devices Systems, vol.152(2005), no.2, pp.165-170
46. B. Milivojevic, S. Hoffmann, A. Thiede, R. Noe, R. Leblanc, B. Wroblewski, “Distributed Amplifiers for Transmitter and Receiver of a 40 Gbit/s DPSK optical transmission system”, Proc. European Microwave Week, The European Gallium Arsenide and other Compound, Semiconductors Application Symposium, GAAS2004, Amsterdam, The Netherlands, 11-12 October, 2004, pp. 9-12
47. S. Hoffmann, A. Thiede, P. Tommasino, A. Trifiletti, A. Vannucci: Measurement-based models of a 40 Gb/s modulator and its electrical driver for joint transmitter design European Gallium Arsenide Application Symp., 2003, Munich/Germany, pp.125-128

48. S. Hoffmann, J. R. Ojha, A. Thiede, R. Leblanc, B. Wroblewski: 7 VPP Modulator-Driver for 40 Gbit/s Optical Communications European Gallium Arsenide Application Symp., 2002, Milan/Italy, pp.181-184
49. R. Sattler, F. Plötz, S. Hoffmann, G. Wachutka: System Level Modeling of an Electrostatic Torsional Actuator. Simulation of Semiconductor Processes and Devices 2001, Editors: D. Tsoukalas, C. Tsamis. pp. 178-181, Springer Verlag Wien New York, ISBN 3-211-83708-6.
50. P. Voigt, R. Sattler, P. Sasse, S. Hoffmann, R. Noé, G. Wachutka: Parameterextraktion für Mikrosysteme am Beispiel eines Gyroskopes. MST 99, Chemnitz, 11./12. Oct. 1999, P4, pp. 156-159, ISBN 3-00-004902-9.