

# 12.

## List of Publications

1. *Special Purpose Computer for Nonlinear Differential Equations*  
Radehaus, C., M. Waldowski, K. Kardell, J. Berkemeier, M. Wiesemann,  
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2. *Pattern Formation on a Nonlinear Periodic Electrical Network*  
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3. *Pattern Formation in S-Shaped Negative Differential Conductivity Material*  
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Z. Phys. B-Condensed Matter **65**, 515-525 (1987)
4. *Parallel verarbeiten, Multiprozessorkarten steigern Leistung von Arbeits-  
platzrechnern*  
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5. *Pattern Formation in Gas-Discharge Systems with High Impedance Electrodes*  
Radehaus, C., T. Dirksmeyer, H. Willebrand, and H.-G. Purwins  
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6. *Properties of Solitary Current Filaments in Silicon Pin Diodes*  
Baumann, H., R. Symanczyk, C. Radehaus, H.-G. Purwins, and D. Jäger  
Phys. Lett. A **123**, 421-424 (1987)
7. *Temporal and Spatial Structures of Nonlinear Dynamical Systems*  
Purwins, H.-G., G. Klempt, and J. Berkemeier  
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8. *Experimental Investigation of Spatial Pattern Formation in Physical Systems of Activator Inhibitor Type*  
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Purwins, H.-G., and C. Radehaus  
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10. *Stable Multifilament Structures in Semiconductor Materials Based on a Kinetic Model*  
Kardell, K., C. Radehaus, R. Dohmen, and H.-G. Purwins  
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11. *Application of the Activator Inhibitor Principle to Physical Systems*  
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12. *Observation of Solitary Filaments and Spatially Periodic Patterns in a DC Gas-Discharge System*  
Willebrand, H., C. Radehaus, F.-J. Niedernostheide, R. Dohmen, and H.-G. Purwins  
Phys. Lett. A **149**, 131-138 (1990)
  
13. *Experiments on the Formation of Stationary Spatial Structures on a Network of Coupled Electrical Oscillators*  
Dirksmeyer, T., R. Schmeling, J. Berkemeier, and H.-G. Purwins  
in: *Patterns, Defects and Materials Instabilities* D. Walgraef, and N. M. Ghoniem (Eds.), Nato ASI Series E: Applied Sciences **183**, 91-107 (1990)
  
14. *Ein Konstruktionsalgorithmus für Mustererkennungssysteme*  
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in: *Physik und Informatik - Informatik und Physik, Arbeitsgespräch*  
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15. *Spatio-Temporal Oscillations During Filament Splitting in Gas-Discharge Systems*  
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16. *Experimental Observation of Simultaneously Existing Moving and Standing Patterns in a Gas-Discharge System*  
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18. *Pattern Formation in Nonlinear Physical Systems with Characteristic Electric Properties*  
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23. *Stationary and Dynamic Patterns of Current Density in Gas -Discharge Systems*  
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25. *Transition from Pulsating to Rocking Localized Structures in Nonlinear Dissipative Distributive Media with Global Inhibition*  
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26. *Experimental and Numerical Observation of Quasiparticle like Structures in a Distributed Dissipative System*  
Willebrand, H., M. Or-Guil, M. Schilke, H.-G. Purwins, and Yu. A. Astrov  
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27. *Fronts between Hopf- and Turing-Type Domains in a Two-Component Reaction-Diffusion System*  
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32. *Measurement of the Transition from Uni- to Bi-Directional Front Propagation in a Reaction-Diffusion System*  
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33. *Spatiotemporal Behaviour of Localized Current Filaments in p-n-p-n Diodes: Numerical Calculations and Comparison with Experimental Results*  
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38. *Dynamics of Current Filaments Studied in Two Exemplary Systems: DC Si p-n-p-n Devices and AC ZnS:Mn Films*  
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in: *Proc. Int. Conf. Artificial Neural Networks (ICANN)*, M. Marinaro, and P. G. Morasso (Eds.), 1335-1338 (1994)

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