

Rüdiger Weiner, Publications

Textbooks:

1. K. Strehmel and R. Weiner:
“Linear-implizite Runge-Kutta-Methoden und ihre Anwendung”, Teubner-Texte zur Mathematik, Vol. 127, 356pp, Teubner-Verlag Stuttgart-Leipzig, 1992.
2. K. Strehmel and R. Weiner:
“Numerik gewöhnlicher Differentialgleichungen”, Teubner-Studienbücherei Mathematik, 462pp, B.G. Teubner Stuttgart, 1995.
3. K. Strehmel, R. Weiner and Helmut Podhaisky:
“Numerik gewöhnlicher Differentialgleichungen”, Springer Spektrum, 505pp, 2012.

Articles:

1. K. Strehmel and R. Weiner:
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2. K. Strehmel and R. Weiner:
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3. K. Strehmel and R. Weiner:
Adaptive Nyström-Runge-Kutta-Methoden für gewöhnliche Differentialgleichungssysteme zweiter Ordnung. Computing 30, 35-47, 1983.
4. K. Strehmel and R. Weiner:
Nonlinear Contractivity of a Class of Semi-Implicit Multistep Methods. Computing 31, 371-381, 1983.
5. K. Strehmel and R. Weiner:
Lokale Fehlerschätzung mittels modifizierter Richardson-Extrapolation in linear-impliziten Einschrittverfahren. Computing 33, 131-140, 1984.
6. K. Strehmel and R. Weiner:
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7. K. Strehmel and R. Weiner:
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8. P.J. van der Houwen, B.P. Sommeijer, K. Strehmel and R. Weiner:
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9. R. Weiner and J. Bruder: Partitioned adaptive Runge-Kutta methods for the solution of nonstiff and stiff differential equations. Teubner-Texte zur Mathematik, Band 82, 189-196, 1986.
10. K. Strehmel and R. Weiner:
B-Convergence Results for Linearly Implicit One Step Methods. BIT 27, 264-281, 1987.
11. K. Strehmel and R. Weiner:
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12. J. Bruder, K. Strehmel and R. Weiner:
Partitioned adaptive Runge-Kutta methods for the solution of nonstiff and stiff systems. Numer. Math. 52, 621-638, 1988.

13. R. Weiner and K. Strehmel:
A Type Insensitive Code for Delay Differential Equations Basing on Adaptive and Explicit Runge-Kutta Interpolation Methods. *Computing* 40, 255-265, 1988.
14. K. Strehmel, R. Weiner and I. Dannehl:
A Study of B-Convergence of Linearly Implicit Runge-Kutta Methods. *Computing* 40, 241-25, 1988.
15. K. Strehmel and R. Weiner:
Order results for linearly implicit Runge-Kutta methods applied to semi-linear stiff systems. *Teubner-
Texte zur Mathematik* 104, 153-163, 1988.
16. K. Strehmel and R. Weiner:
Linearly implicit Runge-Kutta methods and their modification for stiff problems. *Teubner-
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17. K. Strehmel, R. Weiner and H. Claus:
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18. K. Strehmel, R. Weiner and I. Dannehl:
On error behaviour of partitioned linearly implicit Runge- Kutta methods for stiff and differential algebraic systems. *BIT* 30, 358-375, 1990.
19. K. Strehmel, R. Weiner and M. Büttner:
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20. K. Strehmel and R. Weiner:
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21. R. Weiner, M. Arnold, P. Rentrop and K. Strehmel:
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22. M. Büttner, B.A. Schmitt and R. Weiner:
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23. M. Arnold, K. Strehmel and R. Weiner:
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24. M. Büttner, B.A. Schmitt and R. Weiner:
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25. B.A. Schmitt and R. Weiner Matrix-free W-methods using a multiple Arnoldi iteration, *APNUM* 18, 307 - 320, 1995.
26. M. Büttner, R. Weiner and K. Strehmel:
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33. H. Podhaisky, B.A. Schmitt and R. Weiner:
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Numerical experiments with some explicit pseudo two-step RK methods on a shared memory computer. Computers & Mathematics with applications 36, 107–116 (1998).
36. B.A. Schmitt and R. Weiner:
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37. C. Eichler-Liebenow, N.H. Cong, R. Weiner and K. Strehmel:
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43. M. Günther, M. Hoschek and R. Weiner:
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53. B.A. Schmitt and R. Weiner:
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55. A. Gerisch, L. Geris, H. Van Osterwyck, J. Vander Sloten and R. Weiner:
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G. Bischoff and H.-J. Hein (eds.): Micro- and Nanostructures of Biological Systems, Shaker, 60–76
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72. S. Beck, R. Weiner, H. Podhaisky, and B.A. Schmitt:
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Guest Editor:

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