

## List of my publications (T. Mitsui)

Feb 2024

1. Encyclopedic Dictionary of Mathematics traces numerical analysis in Japan, *Tokyo Intelligencer*, 10th International Congress on Industrial and Applied Mathematics, August, 2023, Springer, 22 - 27.
2. Integration of the stochastic underdamped harmonic oscillator by the  $\theta$ -method, *Mathematics and Computers in Simulation*, **199** (2022), 217 - 230, published online, doi: <https://doi.org/10.1016/j.matcom.2022.03.012> (with Angel Tocino and Yoshio Komori)
3. Delay-dependent stability of numerical methods for delay differential systems of neutral type, *BIT*, **57** (2017), 731 - 752, published online, DOI: 10.1007/s10543-017-0650-4 (with G.-Da Hu)
4. Performance of “look-ahead” linear multistep methods, *Proceedings of International Conference of Numerical Analysis and Applied Mathematics* (ICNAAM 2015), ed. by Th. Simos and Ch. Tsitouras, AIP Conference Proceedings 1738 (2016), <http://dx.doi.org/10.1063/1.4951868>
5. Asymptotic mean-square stability of explicit Runge-Kutta Maruyama methods for stochastic delay differential equations, *Journal of Computational and Applied Mathematics*, **296** (2016), 427 - 442 (with Qian Guo and Mingming Qiu)
6. Education/training with industry participation, in ‘*Educational Interfaces between Mathematics and Industry — Reports on an ICMI-ICIAM Study*’ ed. by A. Damlamian, J. F. Rodrigues and R. Sträßer, Springer, 2013, pp.93 – 107 (with G. FitzSimons)
7. Convergence and stability of the split-step-Milstein method for stochastic delay Hopfield neural networks, *Abstract and Applied Analysis*, **2013** (2013), Article ID 169214, 12 pages (with Qian Guo and Wenwen Xie)
8. Bounds of the matrix eigenvalues and its exponential by Lyapunov equation, *Kybernetika*, **48** (2012), 865-878 (with G.-Da Hu)
9. Two-step family of “look-ahead” linear multistep methods for ODEs, *Science and Engineering Review of Doshisha University*, **52** (2011), 181-188. (with D. G. Yakubu)
10. “Look-ahead” linear multistep methods for ordinary differential equations — Introduction of the method —, *Science and Engineering Review of Doshisha University*, **51** (2010), 181-190.
11. A pre-fetched BiCGSTAB method in the solution of the trapezoidal rule of large ODEs, *Far East Journal of Applied Mathematics*, **36** (2009), 1–24. (with S. Nakamura).
12. Strolling in Numerical Analysis: Looking at the horizon, *Ôyô Sûri, Bulletin of the Japan Society for Industrial and Applied Mathematics*, **18–4** (Dec 2008), p.74–76 (in Japanese)
13. Asymptotic and numerical stability of systems of neutral differential equations with many delays, *J. Comput. Appl. Math.*, **223** (2009), 614-625 (with Jiaoxun Kuang and Hongjiong Tian).
14. The number  $\pi$  as a pseudo-random number generator, *Science and Engineering Review of Doshisha University*, **49** (2008), 160-168.

15. Strolling in Numerical Analysis: How was in our country, *Ôyô Sûri, Bulletin of the Japan Society for Industrial and Applied Mathematics*, **18**–3 (Sep 2008), p.52–54 (in Japanese)
16. Strolling in Numerical Analysis: 60 years from the start, *Ôyô Sûri, Bulletin of the Japan Society for Industrial and Applied Mathematics*, **18**–2 (Jun 2008), p.79–81 (in Japanese)
17. Stability property of generalized linear multistep methods for delay integro-differential equations, *Trans. JSIAM*, **18** (2008), 199–216 (in Japanese, with K. Mitsuda, Ch. Suzuki and T. Koto)
18. Strolling in Numerical Analysis: Is numerical analysis dead?, *Ôyô Sûri, Bulletin of the Japan Society for Industrial and Applied Mathematics*, **18**–1 (Mar 2008), p.56–59 (in Japanese)
19. “The golden age of numerical analysis has not yet started!” — Report of the Round Table Discussion in ICIAM07, *SIAM News*, **40**–8 (Oct 2007), p.8–9 (with M. Embree)
20. BiCGSTAB method for solving the trapezoidal rule of large ODEs — How we can speed up by reusing of Krylov subspaces —, *Trans. JSIAM*, **17** (2007), 219–238 (in Japanese, with Sh. Nakamura)
21. *MS*-stability analysis for numerical solutions of stochastic differential equations — Beyond single-step single dim —, in “*Some Topics in Industrial and Applied Mathematics*” (ed. by R. Jeltsch, T.-T. Li and I. Sloan), World Scientific Publishing, Singapore, 2007 (ISBN 978-7-04-021903), pp.181–194 (with Y. Saito)
22. Deflated CG method for solving the trapezoidal rule, *Trans. JSIAM*, **16** (2006), 399–420 (in Japanese, with Sh. Nakamura)
23. Parallelizable numerical solution of linear variable-coefficient system of ODEs, *Proceedings of the Seventh China-Japan Seminar on Numerical Mathematics* (ed. by Z.-C. Shi and H. Okamoto), Science Press, Beijing, 2006, pp.60–72 (with N. Esaki)
24. Solitary-wave propagation and interactions for a sixth-order generalized Boussinesq equation, *Intern. J. Math. Math. Sci.*, **2005** (2005), 1435–1448 (with B.-F. Feng, T. Kawahara & Y.-S. Chan)
25. A variant of the ORTHOMIN(2) method for singular linear systems, *Numer. Algorithms*, **36** (2004), 189–202 (with K. Abe, S.-L. Zhang & C.-H. Jin)
26. Parallelizable block Rosenbrock methods for linear variable-coefficient system of ODEs, *IPSP Trans. Advanced Computing Systems*, **45** (2004), SIG 11 (ACS 7), 290–302 (with N. Esaki)
27. Semi-discretization method along the charactersitics for linear advection-diffusion equations, *Southeast Asian Bulletin of Mathematics*, **27** (2004), 813–827 (with N. Esaki, F.A. Oliveira & F. Patrício).
28. Parallel predictor-corrector iteration of pseudo two-step RK methods for nonstiff IVPs, *Japan J. Industr. Appl. Math.*, **20** (2003), 51–64 (with Nguyen huu Cong).
29. Predator-prey dynamics with delay when prey dispersing in  $n$ -patch environment, *Japan J. Industr. Appl. Math.*, **20** (2003), 37–49 (with L. Qiu).
30. Mean-square stability of numerical schemes for stochastic differential systems, *Vietnam Journal of Mathematics*, **30** (2002), Special Issue, 551–560 (with Y. Saito).

31. Stability of the Radau IA and Lobatto IIIC methods for neutral delay differential equations, *J. Comput. Appl. Math.*, **137** (2001), 279-292 (with L. Qiu).
32. Unique solvability of nonlinear systems arising in the multiderivative block methods, *Japan J. Industr. Appl. Math.*, **18** (2001), 647-656 (with L. Qiu and J.-X. Kuang).
33. Parallelizable ROW methods for linear variable-coefficient system of ODEs, *IPSJ Trans. High Perform. Computing Systems*, **42** (2001), No. SIG 9 (HPS 3), 10-18 (with N. Esaki).
34. On the variance of the solution of the Edwards-Wilkinson equation, *Trans. JSIAM*, **11** (2001), 87-102 (in Japanese, with T. Matsuyama and K. Honda).
35. Numerical solutions of stochastic differential equations — implementation and stability issues —, *J. Comput. Appl. Math.*, **125**(2000), 171-182 (with K. Burrage and P. Burrage).
36. GP-stability of two-step implicit Runge-Kutta methods for delay differential equations, *Intern. J. Computer Math.*, **74**(2000), 255-264 (with B. Yang and N. Esaki).
37. Computational issues in numerical solution of stochastic differential equations, in “*Advances in Numerical Mathematics; Proceedings of the Fourth Japan-China Joint Seminar on Numerical Mathematics*”, ed. by H. KWARADA et al., Gakkotosho, Tokyo, Japan, 1999, pp.75-84.
38. The numerical stability of the  $\theta$ -method for delay differential equations with many variable delays, *J. Computational Mathematics*, **17**(1999), 523-532 (with L. Qiu and J.-X. Kuang).
39. A conservative spectral methods for several two-dimensional nonlinear wave equations, *J. Comput. Phys.*, **153**(1999), 467-487 (with B.-F. Feng and T. Kawahara).
40.  $GP_G$ -stability of Runge-Kutta methods for generalized delay differential systems, *Computers Math. Applic.*, **37**-7 (1999), 89-97 (with B. Yang and L. Qiu).
41. Convergence theory of the CR method for linear singular systems, *Trans. JSIAM*, **9**(1999), 1-13 (with K. Abe, H. Ogata, M. Sugihara and S.-L. Zhang, in Japanese, awarded the Japan SIAM 2002 best paper).
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45. Rooted tree analysis of the order conditions of ROW-type scheme for stochastic differential equations, *BIT*, **37**(1997), 43-66 (Y. Komori and H. Sugiura).
46. Stability analysis of numerical schemes for stochastic differential equations, *SIAM J. Numer. Anal.*, **33**(1996), 2254-2267 (with Y. Saito).
47. Evaluation of the accelerating polynomials in a class of product-type iterative methods for linear systems, *Trans. JSIAM*, **6**(1996), 405-425 (with K. Abe, S.-L. Zhang and H. Sugiura, in Japanese).

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51. Collocation-based two-step Runge-Kutta methods, *Japan J. Industr. Appl. Math.*, **13**(1996), 171-183 (with Nguyen huu Cong).
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70. Attainable order of  $P$ -stable family of certain two-step methods for periodic second order initial value problems, *Japan Journal of Applied Mathematics*, **7**(1990), 423-432 (with T-S. Qi).
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