

**Tanıl Ergenç, Ph.D.****Professor of Mathematics**

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**PERSONAL**

|                |                |
|----------------|----------------|
| Date of Birth  | June 24 , 1955 |
| Place of Birth | Manisa         |

**EDUCATION**

|      |  |
|------|--|
| 1988 | Middle East Technical University, Mathematics, Ph.D. |
| 1981 | Middle East Technical University, Mathematics, M.S.  |
| 1978 | Middle East Technical University, Mathematics, B.S.  |

**ACADEMIC POSITIONS**

|                 |   |
|-----------------|---|
| 09/2006         | Professor, Department of Mathematics,<br>Atılım University, Turkey                          |
| 7/1997-9/2006   | Associate Professor, Department of Mathematics,<br>Middle East Technical University, Turkey |
| 2/1989-7/1997   | Assistant Professor, Department of Mathematics,<br>Middle East Technical University, Turkey |
| 2/1986-2/1989   | Instructure, Department of Mathematics<br>Middle East Technical University, Turkey          |
| 04/1978-02/1986 | Research Assistant, Department of Mathematics,<br>Middle East Technical University, Turkey  |

**ADMINISTRATIVE DUTIES**

|                                    |   |
|------------------------------------|---|
| 02/2010-02/2019                    | Chairman , Department of Mathematics, Atılım University                                 |
| 08/2002-09/2006                    | Associate Director , Institute of Applied Mathematics ,Middle East Technical University |
| 03/1993-11/1995<br>11/1996-04/2001 | Vice Chair , Department of Mathematics ,Middle East Technical University                |

**RESEARCH INTERESTS**

|   |   |
|---|---|
| 1 | Numerical Solutions of Differential Equations       |
| 2 | Ordinary Differential Equations , Dynamical Systems |

## PUBLICATIONS

|           |   |
|-----------|---|
| <b>1</b>  | M.U.Akhmet,C.Büyükdalı,T.Ergenç "Periodic solutions of the hybrid system with small parameter.", Nonlinear Analysis:Hybrid Systems .Vol 2 , pp. 532-543 ,2008   |
| <b>2</b>  | M. U. Akhmet, M. Beklioğlu, <b>T. Ergenç</b> , V. I. Tkachenko, <i>On impulsive ratio-dependent predator-prey system with diffusion</i> , Nonlinear Analysis: Real World Applications 7 pp. 1255 – 1267, 2006.                          |
| <b>3</b>  | Tsybulin V. G., Karasözen B., <b>Ergenç, T.</b> , <i>Selection of steady states in planar Darcy convection</i> , Physics Letters A, Vol. 356, pp. 189-194, 2006.  |
| <b>4</b>  | <b>T. Ergenç</b> , B. Karasözen, <i>Poisson integrators for Volterra lattice equations</i> , Applied Numerical Mathematics, Vol. 56, pp. 879-887, 2006.   |
| <b>5</b>  | A. Yazici, I. Altas, and <b>T. Ergenç</b> , <i>2d Polynomial Interpolation: A Symbolic Approach with Mathematica</i> , Lecture Notes in Computer Science (LNCS), Eds. Gervasi, O. et al., Springer-Verlag, Vol. 3482, pp.463-471, 2005. |
| <b>6</b>  | G.-W. Weber, <b>T. Ergenç</b> , <i>Modelling and prediction of gene-expression patterns reconsidered with Runge-Kutta Discretization</i> , Journal of Computational Technologies, Vol 9 No 6 ,pp40-47 ,2004.                            |
| <b>7</b>  | <b>T. Ergenç</b> , S. W. Pickl, N. Radde, G.-W. Weber, <i>Generalized semi-infinite optimization and anticipatory systems</i> , International Journal of Computing Anticipatory Systems Vol 15, pp 3-30 ,2004.                          |
| <b>8</b>  | A. Yazıcı, <b>T. Ergenç</b> , İ. Altaş, <i>Symbolic Interpolation using Mathematica</i> , Lecture Notes in Computer Science(LNCS), Vol.3039, Part IV, pp. 365-370, 2004.  |
| <b>9</b>  | A. Yazıcı, <b>T. Ergenç</b> , İ. Altaş, <i>Romberg Integration: A Symbolic Approach with Mathematica</i> , Lecture Notes in Computer Science, 2657, pp. 691-700, 2003.  |
| <b>10</b> | <b>Ergenç, T.</b> , Hasçelik Ali İhsan, <i>Order of Convergence of Evolution Operator Method</i> , International Journal of Computer Mathematics, Vol. 70, pp. 279-288, 1998.   |
| <b>11</b> | <b>T. Ergenç</b> B. Karasözen, S. Piskarev, <i>Approximation of semilinear Cauchy problem for the second order equations in banach Spaces</i> , Nonlinear Analysis: Theory, Methods and Applications, vol. 28, no. 7, 1157-1165, 1997   |
| <b>12</b> | <b>T. Ergenç</b> , B. Karasözen, <i>Runge Kutta collocation methods for rigid body Lie-Poisson equations</i> , International Journal of Computer Mathematics, Vol. 62, pp. 63-71, 1996.   |
| <b>13</b> | <b>Ergenç, T.</b> , Demiralp, M., <i>Formulation of Some Gaussian Integrals over R^n via Generating Functions</i> , International Journal of Comput. Math., Vol.54 pp.239-248, 1994.  |

## PROJECTS

|          |   |
|----------|---|
| <b>1</b> | Milli Eğitim Bakanlığı Öğrenci Başarısına İlişkin Durum Belirleme Projesi ,2003   |
| <b>2</b> | Süreksiz Dinamik Sistemler Teorisinin geliştirilmesi ve Mekanik ve Elektronike Uygulaması. 2006-2008. TÜBİTAK, Proje no:106T418 |

## CONFERENCE PRESENTATIONS

|   |   |
|---|---|
| 1 | M.Tastan, T.Ergenc, S.W.Pickl , G.W.Weber Stability analysis of gene expression patterns by dynamical systems and a combinatorial algorithm. HIBIT- Proceedings of International Symposium on Health Informatics ,Turkey, pp.67-75 , 2005 |
| 2 | Hasçelik, A.İhsan, Ergenç T., On the Order of Convergence of Evolution Operator Approach, V.Ulusul Matematik Sempozyumu Bildirileri, 51-58,1992   |
| 3 | Ergenç, T., Demiralp, M., An Evolution Operator Approach for the Numerical Solution of Linear O.D.E. Systems, Proceedings of the Int. Symposium on Numerical Analysis METU, Ankara, Turkey, pp.141-152 ,1989.                             |
| 4 | Ergenç, T., Demiralp, M., "Computational Difficulties of Evolution Operator Approach", Proceedings of the Symposium on Numerical Analysis and its applications METU-Ankara, pp.94-108 ,1986   |

## CITATIONS

|  |    |
|--|----|
| Sum of times cited without self-citations<br>(ISI Web of Science): | 72 |
| H-index (ISI Web of Science):                                      | 3  |

## COURSES GIVEN

|   |   |
|---|---|
| 1 | Calculus I - II   |
| 2 | Mathematical Analysis   |
| 3 | Differential Equations for Engineering Students                 |
| 4 | Differential Equations for Mathematics Students                 |
| 5 | Numerical Analysis  |
| 6 | Numerical Linear Algebra (Graduate Course)                      |
| 7 | Numerical Solutions of Differential Equations (Graduate Course) |

## THESES SUPERVISED

|   |   |
|---|---|
| 1 | PhD Thesis: "Order of Convergence and Stability of Evolution Operator Method", Hasçelik, Ali İhsan, METU, 1994.                                       |
| 2 | MS Thesis, Yield Curve Estimation by Spline – Based Models ,Baki Isa, METU,2006   |
| 3 | MS Thesis Numerical solutions of two point boundary value problems,, Karakaş, Özlem, METU,1992  |
| 4 | MS Thesis :Numerical solutions of the Lorenz and Van der Pol equations by evolution operator method, . Aladl, Usef Emhammed , METU 1992.              |
| 5 | MS Thesis: Evolution operator approach for solving linear ordinary differential equations and computation of Exp (A), . Azzam, Abdelnasser METU 1991. |