### Curriculum Vitae

Name in Full: Hamid Reza Tabrizidooz

Date and Place of Birth: 1978/05/17 - Isfahan - Iran

Position: Assistant Professor, Department of Applied Mathematics, Faculty of

Mathematical Sciences, University of Kashan, Kashan, Iran

## Academic Degrees:

• Ph.D. in applied Mathematics, 2004–2009, Isfahan University of Technology, Isfahan, Iran

- M.Sc. in pure Mathematics, 2000–2002, University of Isfahan, Isfahan, Iran
- B.Sc. in pure Mathematics, 1996–2000, University of Isfahan, Isfahan, Iran

#### Honors and Awards:

- Silver Medal in 24th Student Mathematics Competitions of IMS in Khaje-e-Nasir-e-Toosi University of Technology, Tehran, Iran (2000)
- First grade student in B.Sc. (2000)
- First grade student in Ph.D. (2009)

# Teaching Subjects:

- Foundations of Mathematics (Undergraduate)
- General Calculus I, II (Undergraduate)
- Mathematical Analysis I, II (Undergraduate)
- Numerical Analysis I (Undergraduate)
- Differential Equations (Undergraduate)
- Engineering Mathematics (Undergraduate)
- Real Analysis I (Graduate)

- Calculus of Variations and Optimal Control (Graduate)
- Calculus of Variations and Optimization (Graduate)
- Applied Functional Analysis (Graduate)
- Approximation Theory (Graduate)

### Areas of Research:

- Optimal Control Theory
- Approximation Theory
- Optimization Theory
- Numerical Methods for Trajectory Optimization

# Research Papers:

- A hybrid approximation method for solving Hutchinson's equation, Communications in Nonlinear Science and Numerical Simulation 17 (1), 100–109, 2012 (with Marzban H.R.)
- Composite interpolation method and the corresponding differentiation matrix, Bulletin of the Iranian Mathematical Society 37 (2), 21–34, 2011 (with Marzban H.R.)
- A composite collocation method for the nonlinear Mixed Volterra-Fredholm-Hammerstein integral equations, Communications in Nonlinear Science and Numerical Simulation 16 (3), 1186–1194, 2011 (with Marzban H.R.)
- Solution of nonlinear delay optimal control problems using a composite pseudospectral collocation method, Communications on Pure and Applied Analysis 9 (5), 1379–1389, 2010 (with Marzban H.R.)
- Solution of the generalized Emden-Fowler equations by the hybrid functions method, Physica Scripta 80 (2), 2009 (with Marzban H.R. and Razzaghi M.)
- Solution of variational problems via hybrid of block-pulse and Lagrange interpolating, IET Control Theory and Applications 3 (10), 1363–1369, 2009 (with Marzban H.R. and Razzaghi M.)

• Hybrid functions for nonlinear initial-value problems with applications to Lane-Emden type equations, Physics Letters, Section A: General, Atomic and Solid State Physics 372 (37), 5883–5886, 2008 (with Marzban H.R. and Razzaghi M.)

#### **Conferences:**

- A composite pseudospectral collocation method for nonlinear optimal control problems, 44th Annual Iranian Mathematics Conference, August 27–30, 2013, Ferdowsi University of Mashhad, Mashhad, Iran (with Marzban H.R.)
- A composite pseudospectral method for solving delay optimal control problems, 44th Annual Iranian Mathematics Conference, August 27–30, 2013, Ferdowsi University of Mashhad, Mashhad, Iran (with Yousefiyan B.)
- A modified pseudospectral method for optimal control problems with nonsmooth solution, 44th Annual Iranian Mathematics Conference, August 27–30, 2013, Ferdowsi University of Mashhad, Mashhad, Iran (with Pourbabaee M.)
- On the weak representations of derivative operator for a composite interpolation method, 4th Iranian Conference on Numerical Analysis and its Applications, May 7–8, 2013, Faculty of Khansar, Khansar, Iran
- Solution of nonlinear optimal control problems with inequality constraints by a modified pseudospectral method, 4th Iranian Conference on Numerical Analysis and its Applications, May 7–8, 2013, Faculty of Khansar, Khansar, Iran (with Pourbabaee M.)
- An extension and modification for Gauss pseudospectral method and its application for solving two point boundary value problems, 6th European Conference on Elliptic and Parabolic Problems, May 25–29, 2009, Gaeta, Italy (with Marzban H.R.)
- Composite modified Gauss pseudospectral method, 2nd International Conference on Nonlinear Analysis and Optimization, May 13–15, 2009, Uninersity of Isfahan, Isfahan, Iran (with Marzban H.R.)
- Composite interpolation method and the corresponding differentiation matrix, 8th Seminar of Differential Equations, Dynamical Systems and Their Applications, July 19–21, 2008, Isfahan University of Technology, Isfahan, Iran (with Marzban H.R.)