

ARAM SOROUSHIAN

CURRICULUM VITAE

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Name: Aram Soroushian

Tel: 98 21 77888284, 98 21 22831116-9 (422), 98 912 7373168

Email: aramsoro@yahoo.com, a.soroushian@iiees.ac.ir

Current Position: Research Faculty Member

International Institute of Earthquake Engineering and Seismology (IIEES), since 2004

Education

B.Sc. graduation date and University: December 1990, University of Tehran

M.Sc. graduation date and University: December 1995, Shiraz University

Ph.D. graduation date and University: December 2003, University of Tehran

Ph.D. Thesis Title: New Methods to Maintain Responses' Convergence and Control Responses' Errors in the Analysis of Nonlinear Dynamic Models of Structural Systems

Ph.D. Thesis Supervisor: Dr. Jamshid Farjoodi

Research Stay

- 1- Institute of Mechanics and Computational Mechanics (IBNM), University of Hannover, Hannover, Germany.
(Supervisor: Professor Peter Wriggers)
(March 15, 2003 - ~September 13, 2003)

Honours and Awards

1. The first rank among Structural Engineering Msc. students starting Shiraz University together
2. The first rank among the Civil Engineering Ph.D. students starting the University of Tehran together
3. The first Ph.D. Graduate majoring Earthquake Engineering from the University of Tehran
4. One of the 42 awards for "The Recognized Post Graduate Thesis Subjects in the University of Tehran (2000)"
5. One of the 3 awards for "The Recognized Ph.D. Thesis in the University of Tehran (2004)"
6. One of the 2 awards for "The Recognized Researchers in the Department of Civil Engineering, Faculty of Engineering, University of Tehran (2004)"

Cooperation with the organizing committees of Scientific Events:

1. 2nd IC-SCCE, Athens, July 2006,
2. 4th IC-SCCE, Athens, July 2010,
3. SEE5, Tehran, May 2007,
4. SEE6, Tehran, May 2011,
5. 3rd COMPDYN, Corfu, July 2011,
6. 11th USNCCM, Minneapolis, July 2011,
7. ICOVP 2011, Prague, September 2011,
8. ASEM'11, Seoul, September 2011,
9. 5th IC-SCCE, Athens, July 2012,

10. WCCM X, Sao Paulo, July 2012,
11. 4th COMPDYN, Kos, June, 2013,
12. ICOVP 2013, Lisbon, September 2013,
13. 6th IC-SCCE, Athens, July 2014,
14. WCCM XI, Barcelona, July 2014,
15. SEE7, Tehran May 2015,
16. 5th COMPDYN, Crete, May 2015,
17. 7th ECCOMAS, Crete, June 2016,
18. WCCM XII, Seoul, July 2016,
19. ICCM 2016, Berkeley, August 2016,
20. COMPDYN 2017, Rhodes, June 2017,
21. ICCM 2017
22. ICEDyn 2017
23. ECCM 2018, Glasgow, June 2018
24. 16ECEE 2018, Thessaloniki, June 2018
26. SEE8, June, 2019
25. COMPDYN 2019, Crete, June, 2019
26. ICOVP 2019, Crete, September 2019

Cooperation with Scientific Journals:

Reviewer for:

1. International Journal for Numerical Methods in Engineering
2. Computational Mechanics,
3. Structural Engineering and Mechanics, An International Journal
4. Earthquakes and Structures, An International Journal,
5. Scientia Iranica, Transactions A-Civil Engineering,
6. International Journal of Civil Engineering,
7. Journal of Earthquake Engineering and Seismology,
8. Iranian Journal of Science and Technology, Civil Engineering Transactions,
9. Journal of Applied and Computational Mechanics,
10. Civil Engineering Infrastructures Journal (CEIJ)
11. Computational Methods in Structural Engineering, A Section of Frontiers in Built Environment,
12. European Journal of Environmental and Civil Engineering.

Special Issue Editor for:

1. Journal of Applied and Computational Mechanics

Review Editor for:

1. "Computational Methods in Structural Engineering" a Section of Frontiers in Built Environment

Professional Experience

1. About two years, starting from 1989, in the Monit Consulting Engineers, in Tehran and Shiraz.

2. About one year, on 1991, in the “Farayand Sanatti Iran” Consulting Engineers (now bankrupted), in Tehran.

Teaching Experience

Courses Developed:

1. Time history analysis, in IIEES (2014, 2015)

Courses Taught:

1. Three semesters as teaching assistant during M.Sc. in Shiraz University
2. Two semesters as teaching assistant during Ph.D. in the University of Tehran
3. Four semesters (during 2007-2012), “Advanced Engineering Mathematics”, at IIEES
4. One semester in 2014, “Finite Element Analysis”, at IIEES
5. Two semesters in 2015 and 2019, “Time History Analysis”, at IIEES

Theses/Dissertations Supervision/Co-Supervision

1. Supervisor of the Ms. Thesis Mr. M.Abdollahi Khameneh (defended before 2011)
2. Supervisor of the Ms. Thesis of Mr. S.Pourlatifi (defended before 2011)
3. Co-supervisor (third supervisor) of the Ph.D. Thesis of M. V.Sharif (defended before 2011)
4. Supervisor of the Ms. Thesis of Mr. S. Karimi (defended before 2011)
5. Supervisor of the Ms. Thesis of Miss. M. Arghavani (defended on 2011)
6. Supervisor of the Ms. Thesis of Mr. M. Rajabi (defended on 2011)
7. Supervisor of the Ms. Thesis of Mr. A. Saaed (defended on 2012)
8. Supervisor of the Ms. Thesis of Mr. A. Y. Reziakolaei (defended on 2013)
9. Supervisor of the Ms. Thesis of Mr. A. Sabzei (defended on 2013)
10. Supervisor of the Ms. Thesis of Mr. M. Sharifpour (defended on 2013)
11. Supervisor of the Ms. Thesis of Mr. S. Amiri (defended on 2015)
12. Supervisor of the Ms. Thesis of Mr. S. Azad (defended on 2015)
13. Supervisor of the Ms. Thesis of Mr. A. Asgarihadad (defended on 2015)
14. Supervisor of the Ms. Thesis of Miss Y. Zarabimanesh (defended on 2017)
15. Supervisor of the Ms. Thesis of Mr. A. Zakizadeh (defended on 2017)
16. Second supervisor of Ph.D. Thesis of Miss L.Abbasi (defended on 2016)
17. Supervisor of the Ms. Thesis of Mr. H. Ghondaghsaz (defended on 2017)
18. Supervisor of the Ms. Thesis of Mr. A. Baiani (defended on 2018)
19. Supervisor of the Ms. Thesis of Mr. A. J. Mehrnoosh (defending in a couple of months)
20. Second supervisor of the Ph.D. Thesis of Mr. Astaraki (defending in about a year)
21. Co-Supervisor of the Ms. Thesis of Mr. E. Hosseini (defended on 2018)

Cooperation with academic organizations other than IIEES

1. Indian School of Mines, Dhanbad, India (since 2013)
2. Pooyandegan Danesh University, Chaloos, Iran (since 2014)
3. Shomal University, Mazandaran, Iran (since 2009)
4. South Tehran Branch, Islamic Azad University, Tehran, Iran (since 2010)
5. Science and Research Branch, Islamic Azad University, Tehran, Iran (since 2005)
6. Science and Research Branch, Islamic Azad University, Urmieh, Iran (since 2010)
7. University of Tehran, Tehran, Iran (since 2010)
8. West Tehran Branch, Islamic Azad University, Tehran, Iran (since 2014)

Publications

Reports:

1. Farjoodi, J. and Soroushian, A. (2002), Shortcomings in numerical dynamic analysis of nonlinear systems. Report No. 614/2/696. Iran: University of Tehran. (in Persian)
2. Farjoodi, J. and Mehrazin, H. and Soroushian, A. (2004), On the secondary reasons for improper convergence in time integration of nonlinear equations of motion. Report No. 8102023/1/01. Iran: University of Tehran. (in Persian)
3. Soroushian, A. and Eshghi, S. (2006), The importance of appropriate selection of step size and nonlinearity tolerance in time history analyses. Report No. mlz-16/143. Iran: International Institute of Earthquake Engineering and Seismology. (in Persian)
4. Soroushian, A. (2009), Time integration with step sizes less depending on the steps of excitation: I. SDOF systems. Report No. ma-7/17. Iran: International Institute of Earthquake Engineering and Seismology. (in Persian)
5. Soroushian, A. (2012), Direct time integration with steps larger than the steps by which the excitations are digitized, Report No. 7510. Iran: International Institute of Earthquake Engineering and Seismology. (in Persian)
6. Soroushian, A. (2015), Development of an algorithm and computer program to evaluate the numerical stability and consistency of new time integration methods. Report No. 7517. Iran: International Institute of Earthquake Engineering and Seismology. (In Persian)
7. Soroushian, A. (2018), A. Direct time integration from earthquake induced equations of motion with steps larger than conventional and least dependence to the frequency content of the response, Report No. 7537. International Institute of Earthquake Engineering and Seismology. (In Persian)

Journal Papers:

1. Soroushian, A. and Farjoodi, J. (2003), "More reliable responses for time integration analyses", *Structural Engineering and Mechanics An International Journal*, **16** (2), 219-240.
2. Farjoodi, J. and Soroushian, A. (2003) "Shortcomings in numerical dynamic analysis of nonlinear systems", *Nashriyeh Fanni*, **37**(2), 269-281. (in Persian)
3. Soroushian, A. and Wriggers, P. and Farjoodi, J. (2005), "On practical integration of semi-discretized equations of motion Part 1: Reasons for probable instability and improper convergence", *Journal of Sound and Vibration*, **284**(3-5), 705-731.
4. Soroushian, A. and Farjoodi, J. (2008), "A Unified Starting Procedure for the Houbolt Method", *Communications in Numerical Methods in Engineering*, **24**(1), 1-13.
5. Soroushian, A. (2008), "A technique for time integration analysis with steps larger than the excitation steps", *Communications in Numerical Methods in Engineering*, **24**(12), 2087-2111.
6. Sharif, V. and Ghafory Ashtiany, M. and Eshghi, S. and Soroushian, A. (2009), "Dynamic Assessment of Constrained Rigid Equipments", *Journal of Applied Sciences*, **9**(13), 2362-2371.
7. Soroushian, A. and Wriggers, P. and Farjoodi, J. (2009), "Asymptotic Upper-Bounds for the Errors of Richardson Extrapolation with Practical Application in Approximate Computations", *International Journal for Numerical Methods in Engineering*, **80**(5), 565-595.
8. Soroushian, A. and Wriggers, P. and Farjoodi, J. (2013), "On practical integration of semidiscretized nonlinear equations of motion: proper convergence for systems with piecewise linear behavior", *Journal of Engineering Mechanics ASCE*, **139**(2), 114-145.
9. Soroushian, A. and Farshadmanesh, P. and Azad, S. (2015), "On the essentiality of techniques to enlarge integration steps in transient analysis against digitized excitations", *Journal of Seismology and Earthquake Engineering JSEE*, **17**(1), 43-60.

10. Amiri, S. and Soroushian, A. (2017), "A brief review on buildings structural analysis regulations in different seismic codes", *Research Bulletin of Seismology and Earthquake Engineering*, **20**(1), 1-25.
11. Soroushian, A. (2018), "A general rule for the influence of physical damping on the numerical stability of time integration analysis", *Journal of Applied and Computational Mechanics*, **4**, 467-481.
12. Astaraki, A. and Hosseini, M. and Soroushian, A. and Jalili-Ghazizadeh, M. (2018), "Experimental and numerical investigations on the effect of rectangular openings' aspect ratio on outflow discharge", *Journal of Applied and Computational Mechanics*, **4**, 457-466.
13. Soroushian, A. and Ahmadi, G. and Amiri, S. (2018), "A class of synchronized nonlinear two-dof systems with closed form", *Scientia Iranica*, **25**, 6, 3258-3273.
14. Soroushian, A. and Farahani E.M. (2019), "Efficient static analysis of assemblies of beam-columns subjected to continuous loadings available as digitized records", *Computational Methods in Structural Engineering, A Section of Front Built Environ* **4**:83. <https://doi.org/10.3389/fbuil.2018.00083>

Chapters of books:

1. Soroushian, A. and Vasseghi, A. and Hosseini, M. (2013), "On practical performance of a technique for more efficient dynamic analysis in view of real seismic analysis of bridge structures", in *Computational Methods in Earthquake Engineering Vol. 2*, edited by Papadrakakis, M. and Fragiadakis, M., and Plevris, V., Springer, The Netherlands.
2. Soroushian, A. "Integration step size and its adequate selection in analysis of structural systems against earthquakes", in *Computational Methods in Earthquake Engineering Vol. 3*, edited by Paparakakis, M. and Lagaros, N., and Plevris, V., Springer, The Netherlands. (accepted for publication)

Conference Papers:

1. Soroushian A. and Anvar A. (1997), "Optimum design of residential buildings' steel frames", Proc., the 1st National Conference on High Rise Buildings, Tehran, October. (in Persian)
2. Bargi, K. and Soroushian, A. (1999), "Adaptive time stepping in convergence of step-by-step dynamic analysis", Proc., the 3rd International Conference on Earthquake Engineering and Seismology, SEE3, Tehran, May. (in Persian)
3. Farjoodi, J. and Vahdani, S. and Soroushian, S. (1999), "Three methods for time integration of Equations of motion", Proc., the 1st National Conference of the Iranian Society of Civil Engineers, Tehran, October. (in Persian)
4. Farjoodi, J. and Soroushian, A. (2000), "An efficient method with more accuracy for nonlinear dynamic analysis", Proc., the 5th International Conference on Civil Engineering, 5th ICCE, Mashhad, May. (in Persian)
5. Bargi, K. and Soroushian, A. (2000), "Accelerated convergence toward adequate accuracy in step-by-step dynamic analysis", Proc., the 5th International Conference on Civil Engineering, 5th ICCE, Mashhad, May. (in Persian)
6. Farjoodi, J. and Soroushian, A. (2001), "Robust convergence for the dynamic analysis of MDOF elastoplastic systems", Proc., the 1st International Conference on Structural Engineering, Mechanics, and Computation, SEMC 2001, Cape Town, April
7. Farjoodi, J. and Soroushian, A. (2001), "Efficient automatic selection of tolerances in nonlinear dynamic analysis", Proc., the 1st International Conference on Structural Engineering, Mechanics, and Computation, SEMC 2001, Cape Town, April.
8. Soroushian, A. and Farjoodi, J. (2002), "An improvement in nonlinear analysis", Proc., the 15th Engineering Mechanics Conference of American Society of Civil Engineers, EM2002, New York, June.
9. Soroushian, A. and Farjoodi, J. (2002), "Error control for step-by-step solution of linear semi-discrete equations of motion", Proc., the 5th European Conference on Structural Dynamics, Eurodyn2002, Munich, September.

10. Soroushian, A. and Farjoodi, J. (2003), "Convergence of the responses that time integration generate for contact problems", Proc., the 4th International Conference on Seismology and Earthquake Engineering, SEE4, Tehran, May. (in Persian)
11. Soroushian, A. and Farjoodi, J. and Wriggers, P. (2003), "Reliable convergence for dynamic linearly-elastic/perfectly-plastic systems analyzed with different integration Methods", Proc., the 10th International Congress on Sound and Vibration, ICSV10, Stockholm, July.
12. Soroushian, A. and Farjoodi, J. (2003), "Responses' Convergence in time integration of non-linear semi-discrete equations of motion", Proc., the 8th International Conference on Recent Advances in Structural Dynamics, RASD 2003, Southampton, July.
13. Soroushian, A. and Farjoodi, J. (2003), "Improper convergence in time integration of dynamic systems involving friction", Proc., the 12th International Conference on Computational & Experimental Engineering and Sciences, ICCES'03, Corfu, July.
14. Soroushian, A. (2004), "Responses' convergence for time integration of highly non-linear models", Proc., the 45th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference, Palm Springs, April.
15. Soroushian, A. and Farjoodi, J. (2004), "Implementation of Fractional-Time-Stepping in time integration of structural systems involved in impact", Proc., the 17th Engineering Mechanics Conference of American Society of Civil Engineers, EM2004, Delaware, June.
16. Soroushian, A. and Farjoodi, J. and Mehrazin, H. (2004), "A nonlinearity measure for piece-wisely linear structural dynamics", Proc., the 11th International Congress on Sound and Vibration, ICSV11, St. Petersburg, July.
17. Soroushian, A. and Wriggers, P. and Farjoodi, J. (2004), "Responses' convergence for impact problems analyzed with different integration methods", Proc., the 2nd International Conference on Structural Engineering, Mechanics, and Computation, SEMC 2004, Cape Town, July.
18. Soroushian, A. and Kermani, A. M. and Chavan, K. and Ivanian, A. (2004), "Responses' convergence for time integration analyses involved in linearly-elastic/perfectly-plastic behaviour and impact", Proc., the 6th World Conference on Computational Mechanics, WCCM VI in conjunction with APCOM'04, Beijing, September.
19. Soroushian, A. and Farjoodi, J. and Anvar, S.A. and Mehrazin, H. (2005), "On responses' convergence in structural dynamic analysis part 1: The main reason of improper convergence in presence of nonlinearity", Proc., the 2nd National Congress on Civil Engineering, 2nd NCCE, Tehran, May. (in Persian)
20. Soroushian, A. and Farjoodi, J. and Bargi, K. (2005), "On responses' convergence in structural dynamic analysis part 2: The specific reason of improper convergence in time integration with some integration methods", Proc., the 2nd National Congress on Civil Engineering, 2nd NCCE, Tehran, May. (in Persian)
21. Soroushian, A. and Farjoodi, J. and Rofoei, F.R. and Mohammadi, S. (2005), "On responses' convergence in structural dynamic analysis part 3: The role of computational facilities in the convergence of responses generated by time integration analysis", Proc., the 2nd National Congress on Civil Engineering, 2nd NCCE, Tehran, May. (in Persian)
22. Soroushian, A. and Farjoodi, J. and Vahdani, S. (2005), "On responses' convergence in structural dynamic analysis part 4: Convergence to incorrect responses in time integration analysis", Proc., the 2nd National Congress on Civil Engineering, 2nd NCCE, Tehran, May. (in Persian)
23. Soroushian, A. and Wriggers, P. and Farjoodi, J. (2005), "Time integration of nonlinear equation of motion - Numerical instability or numerical inconsistency?", Proc., the 5th EUROMECH Nonlinear Dynamics Conference, ENOC 2005, Eindhoven, August.
24. Soroushian, A. (2005), "A common reason of improper convergence in time integration of nonlinear semi-discretized equations of motion", Proc., the 13th International Conference on Computational Engineering and Sciences, ICCES'05, Chennai, December.
25. Soroushian, A. (2005), "Two particular reasons for improper convergence in time integration of nonlinear semi-discretized equations of motion", Proc., the 13th International Conference on Computational Engineering and Sciences, ICCES'05, Chennai, December.
26. Soroushian, A. and Farjoodi, J. and Mehrazin, H. (2006), "A new measure for the nonlinear behaviour of piece-wisely linear structural dynamic models", Proc., the 13th International Congress on Sound and Vibration, ICSV13, Vienna, July.

27. Soroushian, A. (2006), "Can we guarantee the enhancement of accuracy in time integration analyses with smaller nonlinearity tolerances?", Proc., the 13th International Congress on Sound and Vibration, ICSV13, Vienna, July.
28. Soroushian, A. (2006), "Robust responses' convergence for time integration of nonlinear equations of motion in lengthy time intervals", Proc., the 13th International Congress on Sound and Vibration, ICSV13, Vienna, July.
29. Soroushian, A. (2006), "Convergence from the standpoints of science and Engineering", Proc., the 2nd International Conference "From Scientific Computing to Computational Engineering", 2nd IC-SCCE, Athens, July.
30. Soroushian, A. and Wriggers, P. and Farjoodi, J. (2006), "A statement for the convergence of approximate responses and its application in structural dynamics", Proc., the 2nd International Conference "From Scientific Computing to Computational Engineering", 2nd IC-SCCE, Athens, July.
31. Soroushian, A. (2006), "New representations for ordinary differential equations", Proc., the 2nd International Conference "From Scientific Computing to Computational Engineering", 2nd IC-SCCE, Athens, July.
32. Soroushian, A. (2006), "On conventional error control in time integration analysis of linear and nonlinear structural systems", Proc., the 7th World Conference on Computational Mechanics, WCCM 2006, Los Angeles, July. (accepted)
33. Soroushian, A. (2007), "On the performance of conventional error controls in time integration analyses involved in impact", Proc., the 8th International Conference on Vibration Problems, ICoVP, Shibpur (India), January-February.
34. Soroushian, A. (2007), "On analyses conventional error control for buildings structural systems subjected to earthquake-included poundings", Proc., the 5th International Conference on Seismology and Earthquake Engineering, SEE5, Tehran, May.
35. Karimi, S. and Arbabi, F. and Soroushian, A. (2007), "Numerical evaluation of hysteretic behavior of buckling restrained braces to be manufactured in Iran", Proc., the 5th International Conference on Seismology and Earthquake Engineering, SEE5, Tehran, May.
36. Farjoodi, J. and Soroushian, A. (2007), "A comparative study on the effects of impact and linear-elastic/perfectly-plastic nonlinearities on structural dynamic behaviors", Proc., the 5th International Conference on Seismology and Earthquake Engineering, SEE5, Tehran, May.
37. Soroushian, A. Farjoodi, J. (2007), "A main caution over researches on seismic resistant structural systems", Proc., the 5th International Conference on Seismology and Earthquake Engineering, SEE5, Tehran, May.
38. Soroushian, A. and Wriggers, P. and Farjoodi, J. (2010), "Richardson extrapolation from the points of view of science and engineering with a practical consequence revisited", Proc., the 4th International Conference from Scientific Computing to Computational Engineering, 4th IC-SCCE, Athens, July.
39. Soroushian, A. (2010), "Proper convergence a concept new in science and important in engineering", Proc., the 4th International Conference from Scientific Computing to Computational Engineering, 4th IC-SCCE, Athens, July.
40. Soroushian, A. (2010), "Pseudo convergence and its implementation in engineering approximate computations", Proc., the 4th International Conference from Scientific Computing to Computational Engineering, 4th IC-SCCE, Athens, July.
41. Soroushian, A. (2010), "Convergence with non-integer rates", Proc., the 4th International Conference from Scientific Computing to Computational Engineering, 4th IC-SCCE, Athens, July.
42. Soroushian, A. and Ahmadi, G. (2010), "A three parameter nonlinear structural dynamic system with exact closed form solution", Proc., the 17th International Congress on Sound & Vibration, ICSV 17, Cairo, July.
43. Soroushian, A. (2010), "On practical performance of a technique recently proposed for time integration analysis with less computational cost", Proc., the 17th International Congress on Sound & Vibration, ICSV 17, Cairo, July.
44. Soroushian, A. and Wriggers, P. and Farjoodi, J. (2010), "More maximum accuracies for time integration analyses involved in simple friction", Proc., the 17th International Congress on Sound & Vibration, ICSV 17, Cairo, July.
45. Soroushian, A. (2010), "An enhanced Fractional-Time-Stepping method for structural dynamics", Proc., the 17th International Congress on Sound & Vibration, ICSV 17, Cairo, July.

46. Soroushian, A. (2010), "On the performance of a conventional accuracy controlling method applied to linear and nonlinear structural dynamics", Proc., the 17th International Congress on Sound & Vibration, ICSV 17, Cairo, July.
47. Soroushian A, Aziminejad A (2011), "A more efficient seismic analysis of tall buildings by implementing a recently proposed technique", Proc., the 6th International Conference Seismology and Earthquake Engineering, SEE6, Tehran, May.
48. Soroushian A, Farjoodi J, Arghavani M, Rajabi M, Saaed A (2011), "A comparative study on the effects of three sources of nonlinearity on structures dynamic behaviours", Proc., the 6th International Conference Seismology and Earthquake Engineering, SEE6, Tehran, May.
49. Soroushian A. (2011), "A comparison between two methods for disregarding excitation steps in seismic analyses", Proc., the 6th International Conference Seismology and Earthquake Engineering, SEE6, Tehran, May.
50. Soroushian A, Hosseini M, Vasseghi A (2011), "On the performance of a technique for more efficient time integration when applied to bridge structures seismic analysis", Proc., the 3rd ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2011, Corfu, May.
51. Soroushian A, Ganji A, Hassanzadeh M, Moghaddam AS (2011), "On the essentiality of further research on computational issues of earthquake engineering in different countries", Proc., the 3rd ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2011, Corfu, May.
52. Soroushian A, Ganji A, Hassanzadeh M, Moghaddam AS, Sarmadi H (2011), "On the role of computational methods in earthquake engineering", Proc., the 3rd ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2011, Corfu, May.
53. Soroushian A, Saaed A, Arghavani M, Rajabi M, Sharifpour MM (2011), "Less computational costs in the analysis of reservoirs seismic behaviours by time integration", Proc., the 10th Biennial International Conference on Vibration Problems, ICoVP-2011, Prague, September.
54. Soroushian, A, Farjoodi J, Bargi K, Rajabi M, Saaed A, Arghavani M, Sarifpour MM (2011), "Two versions of the Wilson- θ time integration methods", Proc., the 10th Biennial International Conference on Vibration Problems, ICoVP-2011, Prague, September.
55. Soroushian A, Arghavani M, Rajabi M, Saaed A, Sharifpour MM (2011), "A proposition on the uniqueness of solutions for nonlinear structural dynamic models", Proc., the 10th Biennial International Conference on Vibration Problems, ICoVP-2011, Prague, September.
56. Soroushian A (2011), "On the performance of a recent technique for more efficient time integration in severe seismic conditions", Proc., the 2011 World Congress on Advances in Structural Engineering and Mechanics, ASEM'11⁺, Seoul, September.
57. Soroushian, A. (2012), "Three propositions on the responses obtained from Richardson extrapolation", Proc., the 5th International Conference from Scientific Computing to Computational Engineering, 5th IC-SCCE, Athens, July.
58. Soroushian, A. (2012), "On the accuracy of accelerations in general implementation of a recently proposed seismic analysis computational cost reduction technique", Proc., the 5th International Conference from Scientific Computing to Computational Engineering, 5th IC-SCCE, Athens, July.
59. Soroushian, A. (2012), "On the adequacy of integration step sizes recommended for nonlinear time integration", Proc., the 5th International Conference from Scientific Computing to Computational Engineering, 5th IC-SCCE, Athens, July.
60. Soroushian A, Rajabi M, Arghavani M, Sabzei A, Reziakolaei AY, Saaed A, Sharifpour MM (2012), "On the order of accuracy of the quasi-Wilson-Theta method", Proc., the 5th International Conference from Scientific Computing to Computational Engineering, 5th IC-SCCE, Athens, July.
61. Soroushian A, Sabzei A, Reziakolaei AY (2013), "On the performance of a technique for reducing the computational cost of time history analyses when applied to mid-rise buildings", Proc., the 7th National Congress on Civil Engineering, 7NCCE, Zahedan, May. (in Persian)
62. Soroushian A, Reziakolaei AY, Sabzei A, (2013), "The difference between two representations of the Wilson-Theta method from the point of view of numerical stability", Proc., the 7th National Congress on Civil Engineering, 7NCCE, Zahedan, May. (in Persian)

63. Sabzei A, Reziakolaei AY, Soroushian A (2013), "On more versatility for an integration step size enlargement technique", Proc., the 4th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2013, Kos, Greece, June.
64. Reziakolaei AY, Sabzei A, Soroushian A (2013), "On the performance of a structural analysis cost reduction technique when applied to residential buildings", Proc., the 4th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2013, Kos, Greece, June.
65. Soroushian A (2013), "A simple approach towards further accuracy in structural dynamic analysis", Proc., the 4th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2013, Kos, June.
66. Soroushian A, Farjoodi J, Bargi K, Reziakolaei AY, Sabzei A (2013), "On the accuracy and computational cost of time history analysis of residential buildings by the quasi-Wilson-Theta method", Proc., the 11th Biannual International Conference on Vibration Problems, ICoVP 2013, Lisbon, September.
67. Soroushian A (2013), "On reliable evaluation of computational errors in dynamic analysis of plate structures", Proc., the 11th Biannual International Conference on Vibration Problems, ICoVP 2013, Lisbon, September.
68. Soroushian A (2014), "Equivalence between convergence and pseudo-convergence when algorithmic parameters do not change geometrically", Proc., the 6th International Conference from Scientific Computing to Computational Engineering, 6th IC-SCCE, Athens, July.
69. Soroushian A (2014), "More efficiency for time integration analyses subjected to continuous or digitized excitations", Proc., the 6th International Conference from Scientific Computing to Computational Engineering, 6th IC-SCCE, Athens, July.
70. Soroushian A (2014), "Effect of Richardson extrapolation on the convergence of some time integration methods", Proc., the 6th International Conference from Scientific Computing to Computational Engineering, 6th IC-SCCE, Athens, July.
71. Amiri S, Garakaninezhad A, Azad S, Soroushian A (2014), "On the effect of nonlinearity tolerance on the adequacy of the integration step size recommended in the seismic code of New Zealand", Proc., the 6th International Conference from Scientific Computing to Computational Engineering, 6th IC-SCCE, Athens, July.
72. Azad S, Asgari Hadad A, Amiri S, Soroushian A (2014), "Case studies on the performance of a transient analysis computational cost reduction technique when applied to analyses with integration methods of order one two and four", Proc., the 6th International Conference from Scientific Computing to Computational Engineering, 6th IC-SCCE, Athens, July.
73. Soroushian A, Garakaninezhad A, Yahyapour A, Asgari Hadad A (2014), "Performance of a computational cost reduction technique in lengthy time intervals analyses", Proc., 11th World Congress on Computational Mechanics, WCCM XI, Barcelona, July.
74. Amiri S, Baiani A, Soroushian A (2015), "On the reliability of the step sizes recommended for time integration in linear transient analysis of mid-rise buildings", Proc., 7th International Conference on Seismology and Earthquake Engineering, SEE7, Tehran, May.
75. Azad S, Soroushian A, Maalek S (2015), "On the performance of a convergence-based time integration acceleration technique in analysis of bridges multi-support excitation", Proc., 7th International Conference on Seismology and Earthquake Engineering, SEE7, Tehran, May.
76. Soroushian A, Wriggers P, Fatjoodi J (2015), "From the notions of nonlinearity tolerances towards a deficiency in commercial transient analysis softwares and its solution", Proc., 5th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2015, Crete, May.
77. Soroushian A, Hosseini M, Khalkhali SM (2016), "On the frequency content of errors originated in a time integration computational cost reduction technique", Proc., 7th European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2016, Crete, June.
78. Soroushian A, Jahani Mehrnoosh A, Zarabi Manesh Y, Ghondagsaz MH, Baiani A, Zaki Zade A.. (2016), "On the performance of a computational cost reduction technique when applied to cooling towers transient analysis", Proc., 7th European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2016, Crete, June.

79. Soroushian A (2016), "On the effect of viscous damping on the stability of time integration methods", Proc., 7th European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2016, Crete, June.
80. Soroushian A (2016), "A different look at the Richardson extrapolation leading to a new proposition", Proc., 7th European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2016, Crete, June.
81. Soroushian, A. (2017), "On time history analysis with steps larger than the steps of earthquake records independent from the frequency contents", Proc., 6th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2017, Island of Rhodes, June.
82. Soroushian A, Zarabimanesh Y, Soleymani K, Khalkhali SM (2017), "A new technique for fractional enlargement of integration steps in transient analysis against digitized excitations", Proc., International Conference on Structural Engineering Dynamics, ICEDyn 2017, Ericeira, July.
83. Soroushian A (2016), "A Correspondence between Errors and Pseudo-errors of Approximate Computations with Similar Rates of Convergence", Proc. 8th International Conference on Computational Methods, ICCM 2017, Guilin, July.
84. Baiani A, Soroushian A, Amiri S (2018), "On the performance of a time integration computational cost reduction technique in implementation in the analysis of buildings with irregularity in plan", Proc. 11th International Congress on Civil Engineering, 11th ICCE, Tehran, Iran, May.
85. Soroushian A (2018), "From Wilson- θ to quasi-Wilson- θ and returning back", Proc. 11th International Congress on Civil Engineering, 11th ICCE, Tehran, Iran, May.
86. Soroushian A, Amiri S (2018), "A comment on nonlinear time history analysis regulations of seismic code of New Zealand applicable in EUROCODE 8 and many other seismic codes", Proc. 16th European Conference on Earthquake Engineering, 16ECEE, Thessaloniki, Greece, June.

Conference abstracts (without full paper) and invited talks:

1. Soroushian, A. (2006), "A classification among the algorithmic parameters of numerical analyses", The 12th International Congress on Computational and Applied Mathematics" (ICCAM 2006), Leuven, July.
2. Soroushian, A. and Mehrazin, H. (2006), "Approximate solution of IVPs of arbitrary order by the methods of structural dynamics", The 12th International Congress on Computational and Applied Mathematics" (ICCAM 2006), Leuven, July.
3. Soroushian, A. (2006) "A new formulation for the errors of ordinary initial value problems", The 12th International Congress on Computational and Applied Mathematics" (ICCAM 2006), Leuven, July.
4. Soroushian, A. (2006), "On the reliability of numerical responses in time integration of real buildings structural systems subjected to seismic pounding", Proc., the 1st International Conference on Vibro-Impact Systems (ICoViS 2006), Loughborough, UK, July.
5. Soroushian, A. (2010), "With proper convergence towards error evaluation in nonlinear analyses", The 11th US National Congress on Computational Mechanics (11th USNCCM), Minneapolis, USA, July.
6. Soroushian, A. (2012), "With nonlinearity iterations towards better control of accuracies in explicit time integration analyses", The 10th World Congress on Computational Mechanics (WCCM X), Sao Paulo, Brazil, July.
7. Saaed, A. and Soroushian, A. and Rajabi, M. and Sharifpour, M.M. and Sabzei, A. (2012), "On the quality of structural analysis essential in the study of lifeline systems", The 10th World Congress on Computational Mechanics (WCCM X), Sao Paulo, Brazil, July.
8. Sabzei, A. and Soroushian, A. and Arghavani, M. and Yahyapour, A. (2012), "On the importance of computational accuracy in structural and earthquake engineering", The 10th World Congress on Computational Mechanics, WCCM X, Sao Paulo, Brazil, July.
9. Soroushian, A. (2011), "On the essentiality of research on nonlinear structural dynamics in Armenia and neighbouring countries from a seismic point of view", International Conference on Dynamics systems, nonlinear analysis and their applications, Armenia, July.
10. Soroushian, A. (2011), "On central difference time integration analysis of semi-discretized equations of motion", International Conference on Dynamics systems, nonlinear analysis and their applications, Armenia, July.

11. Soroushian, A. (2011), "On the reliability and parameters selection in nonlinear dynamic analysis by direct time integration", International Conference on Dynamics systems, nonlinear analysis and their applications, Armenia, July.
12. Soroushian A (2013), "On the notion of nonlinearity residuals in static and dynamic analyses and the effects on dynamic/seismic analyses", The International Conference on Vibration Problems (ICOVP 2013), Lisbon, Portugal, September.
13. Soroushian A (2014), Order of accuracies for parametric time integration methods when together with the integration step size the parameters converge, The 6th International Conference from Scientific Computing to Computational Engineering, 6th IC-SCCE, Athens, July.
14. Garakaninezhad A, Asgari Hadad A, Amiri S, Soroushian, A. (2014), "On the importance of verification and validation in structural engineering", Proc., the 6th International Conference from Scientific Computing to Computational Engineering, 6th IC-SCCE, Athens, July.
15. Soroushian A (2014), "Purification of convergence an approach towards reliable error evaluation", 11th World Congress on Computational Mechanics, WCCM XI, Barcelona, July.
16. Garakaninezhad A, Yahyapour A, Asgari Hadad A, Soroushian A (2014), "A comparison between linear and nonlinear time history analyses after implementing a recent computational cost reduction technique", 11th World Congress on Computational Mechanics, WCCM XI, Barcelona, July.
17. Hosseini M, Soroushian A, Astaraki A (2014), "A numerical approach to evaluate the seismic performance of water supply systems based on demand and capacity in the damaged network", 11th World Congress on Computational Mechanics, WCCM XI, Barcelona, July.
18. Soroushian A (2015), "A general practical procedure for a recently proposed seismic analysis computational cost reduction technique", 7th International Conference on Seismology and Earthquake Engineering, SEE7, Tehran, May.
19. Soroushian A (2015), "A new excitation step size enlargement technique for seismic analyses", 5th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2015, Crete, May.
20. Ahmadi G, Soroushian A, Ziyaeemehr B (2015), "Implementation of a simple reliable error evaluation method in static/dynamic analysis of frames", 5th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2015, Crete, May.
21. Hosseini M, Soroushian A, Astaraki A (2015), "More accurate estimation of crack discharge and its effect on seismic serviceability of water supply networks", 5th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2015, Crete, May.
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Memberships in Date Ascending Order

1. IMS; Society of Mathematicians of Iran, since ~1984 till ~2000,
2. HGGM; Society of Armenian Engineers and Architects in Iran, since 1996,
3. ISCE; Society of Civil Engineers of Iran, since ~1998,
4. IACM; International Association for Computational Mechanics, since June, 2002 for two or three years,
5. IIAV; International Institute of Acoustics and Vibration, since July 2003,
6. IABSE; International Association for Bridge and Structural Engineering, since 1997 till 2004,
- 7- EAEE; European Association of Earthquake Engineering, since January 2005,
- 8- IEEA; Iranian Earthquake Engineering Association, since January 2006,