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1 Research Interests

Primary research interests are related to modeling, simulation and analysis of static and dynamic, elastic and inelastic, deterministic and probabilistic behavior of engineering solids and structures. Focus is on rational computational mechanics formulation, efficient implementation, verification, validation and development of practical applications. Particular interest is in development and use of methods that reduce epistemic, modeling uncertainty. Further, propagation of aleatory uncertainties, that is, time domain modeling and simulation of behavior of inelastic solids and structures with uncertain material and uncertain loading, is of interest as well. Current work is on development and use of high performance computational systems for realistic modeling and simulation of static and dynamic, elastic and inelastic, deterministic and probabilistic, behavior of earthquakes, soils, structures and their interaction. The Real-ESSI Simulator System (<http://real-essi.us>), is an example of such a system.

2 Teaching Interests

Teaching interests are closely related to my research activities, focusing on theoretical, computational and applied aspects of mechanics on both undergraduate and graduate levels. In particular, recent teaching is related to:

Theoretical and computational, deterministic and probabilistic elastic and inelastic mechanics

Practical application of analysis models and numerical simulations to solve practical civil engineering problems

3 Education

Doctor of Philosophy Degree in Civil Engineering at the University of Colorado at Boulder, Department of Civil, Environmental and Architectural Engineering, July 1997. Thesis title: *"Finite Deformation Hyperelasto-plasticity of Geomaterials"*, thesis Advisor Professor Stein Sture.

Master of Science Degree in Civil Engineering at the University of Colorado at Boulder, Department of Civil, Environmental and Architectural Engineering, May 1994. Thesis title *"Implicit Integration Rules in Elasto-plasticity: Theory and Implementation"*, thesis Advisor Professor Stein Sture.

Diploma Engineer Degree in Civil Engineering at Belgrade University, The Faculty of Civil Engineering, Engineering Mechanics and Theory of Structures Department, Belgrade, Yugoslavia, July 1989. Diploma Thesis: *Dynamic Analysis of Axisymmetric Solids Subjected to Non-Symmetric Loading by the Finite Element Method*", thesis Advisor Professor Miodrag Sekulović.

4 Publications

Most publications below are available electronically, some through links to \LaTeX sources and PDFs below. Copyright to material below is held by Boris Jeremić. Please treat this material in a way consistent with the "fair use" provisions of appropriate copyright law.

Books

2. Boris Jeremić, Zhaohui Yang, Zhao Cheng, Guanzhou Jie, Nima Tafazzoli, Matthias Preisig, Panagiota Tasiopoulou, Federico Pisanò, José Abell, Kohei Watanabe, Yuan Feng, Sumeet Kumar Sinha, Fatemah Behbehani, Han Yang, and Hexiang Wang. **Nonlinear Finite Elements: Modeling and Simulation of Earthquakes, Soils, Structures and their Interaction.** University of California, Davis, CA, USA; 3181 pages; 2008–2023; ISBN: 978-0-692-19875-9; [WEB LINK to PDF](#)
1. Alain Pecker, Boris Jeremić and James J. Johnson, **Methodologies for Seismic Soil-Structure Interaction Analysis in the Design and Assessment of Nuclear Installations.** United Nations, International Atomic Energy Agency, UN-IAEA. 196 pages, IAEA-TECDOC-1990; IAEAL 21-01471; ISBN 978-92-0-143121-9 (paperback); ISBN 978-92-0-143021-2 (pdf); 2022.

Book Chapters

5. John B. Rundle, James R. Holliday, William R. Graves, Paul B. Rundle, Boris Jeremić, Sashi K. Kunnath, Richard Feltstykkt, Kevin Mayeda, Donald L. Turcotte, Andrea Donnellan. A Practitioner's Guide to Operational Real Time Earthquake Forecasting Chapter in a book: Applied Geology of Northern California, Edited by: Robert Anderson and Horacio Ferriz, 2014.
4. Jeremic, B., Sett, K., Taiebat, M. and Tafazzoli, N.. Computational Geomechanics", in Structural, Geotechnical and Earthquake Engineering, edited by Sashi K. Kunnath, in Encyclopedia of Life Support Systems (EOLSS), Developed under the Auspices of the UNESCO, EOLSS Publishers, Paris, France, 2014. [<http://www.eolss.net>]
3. Boris Jeremić, Justin Coleman and Andrew Whitaker. Nonlinear Time Domain Soil-Structure Interaction Analysis , Chapter in Standard: ASCE-4, Seismic Analysis of Safety-Related Nuclear Structures and Commentary, 2014.
2. Boris Jeremić. High Fidelity Modeling and Simulation of SFS Interaction: Energy Dissipation by Design, Chapter in Book: Soil-Foundation-Structure Interaction, Edited by R.P. Orense, N. Chouw, and M. Pender, CRC Press, Taylor & Francis Group, pp 125-131, 2010.
1. Boris Jeremić and Guanzhou Jie. Parallel Soil–Foundation–Structure Computations. Chapter in Book: *Progress in Computational Dynamics and Earthquake Engineering*, Edited by M. Papadrakakis, D.C. Charnpis, N.D. Lagaros and Y. Tsompanakis, Taylor and Francis Publishers, 2008.

Papers in Refereed Journals

L^AT_EX sources and PDFs are linked below

59. Hexiang Wang, Fangbo Wang, Han Yang, Katarzyna Staszewska, Boris Jeremić, Sobol' Sensitivity Analysis of a 1D Stochastic Elasto-Plastic Seismic Wave Propagation (In Print) *Soil Dynamics and Earthquake Engineering*, 2025.
58. Constantinos Kanellopoulos, Peter Rangelow, Boris Jeremić, Ioannis Anastasopoulos, Božidar Stojadinović Linear and Nonlinear Dynamic Structure-Soil-Structure Interaction for Nuclear Power Plants, *Soil Dynamics and Earthquake Engineering*, 162, 2023.
57. Kyriakos Alexandros Chondrogiannis, Vasilis Dertimanis, Boris Jeremić, Eleni Chatzi Design of the negative stiffness NegSV mechanism for structural vibration attenuation exploiting resonance *International Journal of Mechanical Sciences*, 360, 2023.
56. Constantinos Kanellopoulos, Nikolaos Psycharis, Han Yang, Boris Jeremić, Ioannis Anastasopoulos, Božidar Stojadinović Seismic resonant metamaterials for the protection of an elastic-plastic SDOF system against vertically propagating seismic shear waves (SH) in nonlinear soil. *Soil Dynamics and Earthquake Engineering*, 162, 2022.
55. Hexiang Wang, Fangbo Wang, Han Yang, Yuan Feng, Boris Jeremić. Time Domain Probabilistic Seismic Risk Analysis using Ground Motion Prediction Equations of Fourier Amplitude Spectra. *Soil Dynamics and Earthquake Engineering*, 158:107218, 2022.
54. Fangbo Wang, Hexiang Wang, Han Yang, Yuan Feng, and Boris Jeremić, A Modular Methodology for Time-domain Stochastic Seismic Wave Propagation. *Computers and Geotechnics*, 139, 104409, 2021.
53. Bruno Guidio, Boris Jeremić, Leandro Guidio, Chanseok Jeong, Passive-seismic Inversion of SH-Wave Input Motions in a Truncated Domain. *Soil Dynamics and Earthquake Engineering*, Vol 158, July 2022.
52. Yuan Feng, Han Yang, Hexiang Wang, and Boris Jeremić, Architecture Aware Plastic Domain Decomposition in Finite Element Simulation. In review, *ASCE Journal of Computing in Civil Engineering*, 2020.
51. Han Yang, Hexiang Wang, and Boris Jeremić, Numerical Modeling and Validation of Earthquake Soil Structure Interaction: A 12-Story Hotel in Ventura, California. In Print. *Frontiers in Built Environment, Earthquake Engineering*, 2023.
50. Hexiang Wang, Fangbo Wang, Han Yang, and Boris Jeremić, Site Response Analysis: Uncertain Motions Propagating through Uncertain Elastoplastic Soil. In Print. *Nuclear Engineering and Design*, 2022.
49. Han Yang, Hexiang Wang, and Boris Jeremić, An Energy-Based Analysis Framework for Soil Structure Interaction Systems. In Print. *Computers & Structures*, 2022.
48. Yuan Feng, Han Yang, Hexiang Wang, Fangbo Wang and Boris Jeremić SmallTensor: High-Performance Tensor Algebra for Elastoplastic Finite Element Analysis. In review. *International Journal of High Performance Computing Applications* , 2020.

47. Hexiang Wang, Han Yang, Yuan Feng and Boris Jeremić. Modeling and Simulation of Earthquake Soil Structure Interaction Excited by Inclined Seismic Waves. *Soil Dynamics and Earthquake Engineering*, 146:106720, 2021.
46. Hexiang Wang, Fangbo Wang, Han Yang, Jeff Bayless, Marco Baglio, Norman A. Abrahamson, and Boris Jeremić. Time Domain Intrusive Stochastic Framework for Seismic Risk Analysis of Nonlinear Shear Frame Structure. *Earthquake Engineering and Structural Dynamics*, 136, 106201, 2020.
45. Han Yang, Hexiang Wang, Yuan Feng and Boris Jeremić. Plastic Energy Dissipation in Pressure-Dependent Materials. *ASCE Journal of Engineering Mechanics*, 146(3), 1-9 2020.
44. Han Yang, Yuan Feng, Hexiang Wang and Boris Jeremić. Energy Dissipation Analysis for Inelastic Reinforced Concrete and Steel Beam-Columns. *Engineering Structures*, 197, 109431, 2019.
43. José Abell, Yuan Feng, Han Yang, Hexiang Wang and Boris Jeremić. Domain Specific Language for Finite Element Modeling and Simulation. In Review, *Advances in Engineering Software*, 1 2022.
42. Yuan Feng, Kaveh Zamani Han Yang, Hexiang Wang, Fangbo Wang, and Boris Jeremić. Procedure to Build Trust in Nonlinear Elastoplastic Integration Algorithm: Solution and Code Verification. *Engineering with Computers*, 36, 1643-1656 2020.
41. Han Yang, Hexiang Wang, Yuan Feng, Fangbo Wang and Boris Jeremić. Energy Dissipation in Solids due to Material Inelasticity, Viscous Coupling, and Algorithmic Damping. *ASCE Journal of Engineering Mechanics*, 145(9) 2020.
40. Zhiguang Zhou, Xiaodong Wei, Zheng Lu, and Boris Jeremić. Influence of Soil-Structure Interaction on performance of a super tall building using a new eddy-current tuned mass damper. *The Structural Design of Tall and Special Buildings*, 27:e1501, 2018.
39. Han Yang, Sumeet Kumar Sinha, Yuan Feng, David B McCallen and Boris Jeremić. Energy Dissipation Analysis of Elastic-Plastic Materials. *Computer Methods in Applied Mechanics*, 331:309-326, 2018.
38. José A. Abell, Nebojša Orbović, David B. McCallen and Boris Jeremić. Earthquake Soil Structure Interaction of Nuclear Power Plants, differences in response to 3-D, 3×1-D, and 1-D excitations. *Earthquake Engineering and Structural Dynamics*, 47 (6), 2018.
37. Régnier, Julie and Bonilla, Luis-Fabian and Bard, Pierre-Yves and Bertrand, Etienne and Hollender, Fabrice and Kawase, Hiroshi and Sicilia, Deborah and Arduino, Pedro and Amorosi, Angelo and Asimaki, Domniki and Boldini, Daniela and Chen, Long and Chiaradonna, Anna and DeMartin, Florent and Ebrille, Marco and Elgamal, Ahmed and Falcone, Gaetano and Foerster, Evelyne and Foti, Sebastiano and Garini, Evangelia and Gazetas, George and Gélis, Céline and Ghofrani, Alborz and Giannakou, Amalia and Gingery, James R. and Glinesky, Nathalie and Harmon, Joseph and Hashash, Youssef and Iai, Susumu and Jeremić, Boris and Kramer, Steve and Kontoe, Stavroula and Kristek, Jozef and Lanzo, Giuseppe and Lernia, Annamaria di and Lopez-Caballero, Fernando and Marot, Marianne and McAllister, Graeme and Diego Mercerat, E. and Moczo, Peter and Montoya-Noguera, Silvana and Musgrove, Michael and Nieto-Ferro, Alex and Pagliaroli, Alessandro and Pisanò, Federico and Richterova, Aneta and Sajana, Suwal and Santisi d'Avila, Maria Paola and Shi, Jian and Silvestri, Francesco and Taiebat, Mahdi and Tropeano, Giuseppe and Verrucci, Luca and Watanabe, Kohei. International benchmark

- on numerical simulations for 1D, nonlinear site response (PRENOLIN): Verification phase based on canonical cases. *Bulletin of the Seismological Society of America*, Vol 106, N0 5, pages 2112-2135, 2016.
36. Kohei Watanabe, Federico Pisanò, Boris Jeremić. A Numerical Investigation on Discretization Effects in Seismic Wave Propagation Analyses. *Engineering with Computers*, <http://dx.doi.org/10.1007/s00366-016-0488-4>, 33, 3, pp 519-545, 2017.
 35. Konstantinos Karapiperis, Kallol Sett, M. Levent Kavvas, Boris Jeremić. Fokker-Planck linearization for non-Gaussian stochastic elastoplastic finite elements. *Computer Methods in Applied Mechanics and Engineering*, No., 307, pp 451-469, 2016.
 34. Panagiota Tasiopoulou, Mahdi Taiebat, Nima Tafazzoli, Boris Jeremić. On Validation of Fully Coupled Behavior of Porous Media using Centrifuge Test Results. *Journal of Coupled Systems*, Vol 4, No. 1, pp 37-65, 2015.
 33. Panagiota Tasiopoulou, Mahdi Taiebat, Nima Tafazzoli, Boris Jeremić. Solution Verification Procedures for Modeling and Simulation of Fully Coupled Porous Media: Static and Dynamic Behavior. *Journal of Coupled Systems*, Vol 4. No. 1, pp 67-98, 2015.
 32. Federico Pisanò and Boris Jeremić. Simulating stiffness degradation and damping in soils via simple visco-elastic-plastic model. *Soil Dynamics and Geotechnical Earthquake Engineering*, Vol, 63, Pages 98-109, August 2014.
 31. Boris Jeremić, Nima Tafazzoli, Timothy Ancheta, Nebojša Orbović and Andrei Blahoianu. Seismic behavior of NPP structures subjected to realistic 3D, inclined seismic motions, in variable layered soil/rock, on surface or embedded foundations. *Nuclear Engineering and Design*, Vol, 265, Pages 85-94, 2013.
 30. Kallol Sett, Boris Jeremić. and M. Levent Kavvas. Stochastic Elastic-Plastic Finite Elements. *Computer Methods in Applied Mechanics and Engineering*, Vol 200, No. 9-12, pp 997-1007, 2011.
 29. Kallol Sett, Berna Unutmaz, Kemal Önder Çetin, Suzana Koprivica and Boris Jeremić. Soil Uncertainty and its Influence on Simulated G/G_{max} and Damping Behavior. *ASCE Journal of Geotechnical and Geoenvironmental Engineering*, Volume 137, Issue 3, pp 218-226, March, 2011.
 28. Mahdi Taiebat, Boris Jeremić. Yannis F. Dafalias, Amir M. Kaynia, and Zhao Cheng. Propagation of Seismic Waves through Liquefied Soils. *Soil Dynamics and Earthquake Engineering*, No. 30, pp 236-257, 2010.
 27. Kallol Sett and Boris Jeremić. Probabilistic Yielding and Cyclic Behavior of Geomaterials. *International Journal for Numerical and Analytical Methods in Geomechanics*, Vol. 34, No. 15, pp 1541-1559, 2010.
 26. Zhao Cheng and Boris Jeremić. Numerical Simulations of Piles in Liquefied Soils. *Soil Dynamics and Earthquake Engineering*, No. 29, pp 1405-1416, 2009.
 25. Hadi Shahiri, Ali Pak, Mahdi Taiebat and Boris Jeremić. Evaluation of Variation of Permeability in Liquefiable Soil under Earthquake Loading. In print, *Soil Dynamics and Earthquake Engineering*, 2011.

24. Boris Jeremić, Guanzhou Jie, Matthias Preisig and Nima Tafazzoli. Time domain simulation of soil-foundation-structure interaction in non-uniform soils. *Earthquake Engineering and Structural Dynamics*, Volume 38, Issue 5, pp 699-718, 2009.
23. Ciang Wang, Matthew R. Allen, David, B. Burr, Enriqe Lavernia, Boris Jeremić and David P. Fyhrie. Identification of material parameters based on Mohr-Coulomb failure criterion for bisphosphonate treated canine vertebral cancellous bone. *Journal of the Mechanical Behavior of Biomedical Materials*, Volume 43, Issue 4, pp. 775 - 780. 2008.
22. Boris Jeremić and Kallol Sett. On Probabilistic Yielding of Materials. *Communications in Numerical Methods in Engineering*, Volume 25, No. 3, pp 291-300, 2009.
21. Boris Jeremić and Zhao Cheng. On Finite Deformation Hyperelasto-Plasticity of Anisotropic Materials. *Communications in Numerical Methods in Engineering*, Volume 25, Issue 4, pp. 391-400, 2009.
20. Boris Jeremić, Zhao Cheng, Mahdi Taiebat and Yannis Dafalias. Numerical Simulation of Fully Saturated Porous Materials. *International Journal for Numerical and Analytical Methods in Geomechanics*, Volume 32, No. 13, pp 1635-1660, 2008.
19. Kallol Sett, Boris Jeremić and M. Levent Kavvas. The Role of Nonlinear Hardening in Probabilistic Elasto-Plasticity. *International Journal for Numerical and Analytical Methods in Geomechanics.*, Vol 31, No. 7, pp 953-975, 2007.
18. Kallol Sett, Boris Jeremić, and M. Levent Kavvas. Probabilistic Elasto-Plasticity: Solution and Verification in 1D. *Acta Geotechnica*, Volume 2., No. 3. pp 211-220, October 2007.
17. Boris Jeremić, Kallol Sett and M. Levent Kavvas. Probabilistic Elasto-Plasticity: Formulation in 1D. *Acta Geotechnica*, Volume 2., No. 3. pp 197-210, October 2007.
16. Boris Jeremić and Zhao Cheng. Significance of Equal Principal Stretches in Computational Hyperelasticity. *Communications in Numerical Methods in Engineering*, Volume 21, Issue 9, pp 477-486, September 2005.
15. Zhaohui Yang and Boris Jeremić. Study of Soil Layering Effects on Lateral Loading Behavior of Piles *ASCE Journal of Geotechnical and Geoenvironmental Engineering*, Volume 131, No. 6, June 2005, pp. 762-770.
14. Boris Jeremić, Sashi Kunnath and Feng Xiong. Influence of Soil-Structure interaction on Seismic Response of Bridges. *International Journal for Engineering Structures*, Volume 26, Issue 3, February 2004, pp. 391-402.
13. Boris Jeremić, Zhaohui Yang and Stein Sture. Numerical Assessment of the Influence of End Conditions on Constitutive Behavior of Geomaterials. *ASCE Journal of Engineering Mechanics*, Volume 130, issue 6, June 2004.
12. Zhaohui Yang and Boris Jeremić. Numerical Study of the Effective Stiffness for Pile Groups. *International Journal for Numerical and Analytical Methods in Geomechanics*, Volume 27, Issue 15, pp 1255-1276, Dec. 2003.

11. Zhaohui Yang and Boris Jeremić. Numerical analysis of pile behavior under lateral loads in layered elastic-plastic soils. *International Journal for Numerical and Analytical Methods in Geomechanics*, Volume 26, Issue 14, pp 1385-1406, Dec. 2002.
10. Boris Jeremić, Gerik Scheuermann, Jan Frey, Zhaohui Yang, Bernd Hamman, Kenneth I. Joy and Hans Haggren. Tensor Visualizations in Computational Geomechanics. *International Journal for Numerical and Analytical Methods in Geomechanics incorporating Mechanics of Cohesive–Frictional Materials*, Vol 26. Issue 10, pp 925-944, August 2002.
9. Boris Jeremić and Zhaohui Yang. Template Elastic–Plastic Computations in Geomechanics. *International Journal for Numerical and Analytical Methods in Geomechanics*, Volume 26, Issue 14, pp 1407-1427, Dec. 2002.
8. Boris Jeremić and Kenneth Runesson and Stein Sture. Finite Deformation Analysis of Geomaterials. *International Journal for Numerical and Analytical Methods in Geomechanics incorporating Mechanics of Cohesive–Frictional Materials*, Volume 25, No. 8, pp. 809-840, 2001.
7. Boris Jeremić. Line Search Techniques for Elasto–Plastic Finite Element Computations in Geomechanics. *Communications in Numerical Methods in Engineering*, Volume 17, issue 2, pages 115-125, 2001.
6. Boris Jeremić and Christos Xenophontos. Application of the p-Version of the Finite Element Method to Elasto–plasticity with Localization of Deformation. *Communications in Numerical Methods in Engineering*, Volume 15, pages 867-876, 1999.
5. Boris Jeremić and Kenneth Runesson and Stein Sture. Object Oriented Approach to Hyperelasticity. *International Journal for Engineering with Computers*, vol. 15(1), pages 2-12, 1999.
4. Boris Jeremić and Kenneth Runesson and Stein Sture. A model for elastic–plastic pressure sensitive materials subjected to large deformations. *International Journal of Solids and Structures*, vol. 36 No. 31/32 pages 4901-4918, 1999.
3. Stein Sture, Nicholas C. Costes, Susan N. Batiste, Mark R. Langton, Khalid A. Al–Shibli, Boris Jeremić, Roy A. Swanson and Melissa Frank. Mechanics of granular materials at low effective stresses. *ASCE Journal of Aerospace Engineering*, vol. 11, No. 3, pages 67-72, 1998.
2. Boris Jeremić and Stein Sture. Tensor data objects in finite element programming. *International Journal for Numerical Methods in Engineering*, Volume 41, pages 113-126, 1998.
1. Boris Jeremić and Stein Sture. Implicit integrations in elasto–plastic geotechnics. *International Journal of Mechanics of Cohesive–Frictional Materials*, Volume 2, pages 165-183, 1997.

Proceedings of Refereed Conferences

61. Kyriakos Alexandros Chondrogiannis Vasilis Dertimanis and Boris Jeremić and Eleni Chatzi. On the vibration attenuation properties of metamaterial design using negative stiffness elements. *Advances in Nonlinear Dynamics - Proceedings of the Second International Nonlinear Dynamics Conference (NODYCON 2021)*, Vol.3. Sapienza, Università di Roma, 16-19 February 2021.
60. Constantinos Kanellopoulos, Boris Jeremić, Ioannis Anastasopoulos and Božidar Stojadinović Use of the Domain Reduction Method to Simulate the Seismic Response of an Existing Structure Protected by Resonating Unit Cell Metamaterials. *Proceedings of the EUROODYN 2020, XI International Conference on Structural Dynamics*, Athens, Greece, 23-26 November 2020.
59. Han Yang, Hexiang Wang, Jerzy Salamon and Boris Jeremić. Earthquake Soil Structure Interaction Analysis of a Gravity Dam *Proceedings of the 15th International Benchmark Workshop on Numerical Analysis of Dams*, Milano, Italy, 9-11 September 2019.
58. A. Rodgers, N.A. Petersson, A. Pitarka, M. Miah, D. McCallen and B. Jeremić, HPC SIMULATIONS OF BROADBAND NEAR-FAULT GROUND MOTIONS FOR ENGINEERING APPLICATIONS In *proceedings of the Eleventh U.S. National Conference on Earthquake Engineering, Integrating Science, Engineering & Policy*, Los Angeles, California, USA June 25-29, 2018.
57. Y. Feng, S.K. Sinha, H. Yang, H.Wang, D. McCallen and B. Jeremić, 3D Nonlinear Earthquake Soil Structure Interactions (ESSI) for Nuclear Power Plants (NPP) In *proceedings of the Eleventh U.S. National Conference on Earthquake Engineering, Integrating Science, Engineering & Policy*, Los Angeles, California, USA June 25-29, 2018.
56. H. Yang, D. McCallen and B. Jeremić, ENERGY DISSIPATION IN EARTHQUAKE SOIL STRUCTURE INTERACTION MODELING AND SIMULATION In *proceedings of the Eleventh U.S. National Conference on Earthquake Engineering, Integrating Science, Engineering & Policy*, Los Angeles, California, USA June 25-29, 2018.
55. B. Jeremić, Y. Feng, H. Yang, H. Wang, D. Kovačević, A. Rodgers, D. McCallen and INTERFACE BETWEEN EARTHQUAKE GROUND MOTIONS AND STRUCTURAL RESPONSE: NUMERICAL MODELING AND SIMULATION OF ESSI BEHAVIOR In *proceedings of Best Practices in Physics-based Fault Rupture Models for Seismic Hazard Assessment of Nuclear Installations: issues and challenges towards full Seismic Risk Analysis*. Cadarache Château, France, May 14-16 2018.
54. Yuan Feng, José Abell, Sumeet Kumar Sinha, Han Yang, Fatemah Behbehani, Hexian Wang, Nebojša Orbović, David B McCallen and Boris Jeremić. Verification for the Real ESSI Simulator. In *proceedings of Structural Mechanics in Reactor Technology (SMiRT) 24 conference*, Busan, South Korea, August 20-25, 2017.
53. Hexian Wang, Han Yang, Sumeet Kumar Sinha, Yuan Feng, Chao Luo, David B McCallen and Boris Jeremić. 3D Non-Linear Earthquake Soil-Structure Interaction Modeling of Embedded Small Modular Reactor (SMR). In *proceedings of Structural Mechanics in Reactor Technology (SMiRT) 24 conference*, Busan, South Korea, August 20-25, 2017.

52. Sumeet Kumar Sinha, Yuan Feng, Han Yang, Hexiang Wang, Nebojša Orbović, David B McCallen and Boris Jeremić. 3D Non-Linear Modeling and Its Effects in Earthquake Soil-Structure Interaction In proceedings of Structural Mechanics in Reactor Technology (SMiRT) 24 conference, Busan, South Korea, August 20-25, 2017.
51. José Abell, Jorge G.G. Crempien, Boris Jeremić, Physics-Based Scenario Modeling for Earthquake-Soil-Structure Interaction of Buildings In proceedings of XVI World Conference on Earthquake Engineering, At Santiago, Chile, January 9-13, 2017.
50. José Abell, Sumeet Kumar Sinha, Boris Jeremić, Wavelet Based Synthetic Earthquake Sources for Path and Soil Structure Interaction Modeling: Stress Testing of Nuclear Power Plants In proceedings of IAEA conference on: Best Practices in Physics-based Fault Rupture Models for Seismic Hazard Assessment of Nuclear Installations, Vienna, Austria, November 18 - 20, 2015.
49. Nebojša Orbović, Boris Jeremić, José Abell, Chao Luo, Robert P. Kennedy and Andrei Blaihoanu, Use of Nonlinear, Time Domain Analysis for Design in Proceedings of the Structural Mechanics in Reactor Technology (SMiRT) 2015 Conference, Manchester, August 10-14, 2015.
48. Boris Jeremić, Robert Roche-Rivera, Annie Kammerer, Nima Tafazzoli, Jose Abell, Babak Kamranimoghaddam, Federico Pisano, ChangGyun Jeong and Benjamin Aldridge The NRC ESSI Simulator Program, Current Status in Proceedings of the Structural Mechanics in Reactor Technology (SMiRT) 2013 Conference, San Francisco, August 18-23, 2013.
47. Justin Coleman, Andrew Whittaker, and Boris Jeremić. Nonlinear Time Domain Seismic Soil Structure Interaction (SSI) Analysis for Nuclear Facilities and Draft Appendix B of ASCE 4 in Proceedings of the Structural Mechanics in Reactor Technology (SMiRT) 2013 Conference, San Francisco, August 18-23, 2013.
46. Kallol Sett, Kow Eshun, You-Chen Chao and Boris Jeremić. Effect of Uncertain Spatial Variability of Soils on Nonlinear Seismic Site Response Analysis in Proceedings of the 2012 Geo-Congress, Oakland, CA, March 25-29, 2012.
45. Boris Jeremić, Nima Tafazzoli, Nebojša Orbović and Andrei Blahoianu. 3D Analysis of the Influence of Varying Rock/Soil Profiles on Seismic NPP Response. in Proceedings of the 21st Structural Mechanics in Reactor Technology (SMiRT) Conference, New Delhi, India, November 6-11, 2011.
44. Boris Jeremić, Annie Kammerer, Nima Tafazzoli and Babak Kamrani. The NRC ESSI Simulator. in Proceedings of the 21st Structural Mechanics in Reactor Technology (SMiRT) Conference, New Delhi, India, November 6-11, 2011.
43. Mahdi Taiebat, Boris Jeremić, Yannis F. Dafalias. Prediction of seismically induced voids and pore fluid volume/pressure redistribution in geotechnical earthquake engineering. in Proceedings of the Sixty Third Canadian Geotechnical Conference & Sixth Canadian Permafrost Conference, Calgary, AB, Canada, 233-237, Calgary, Alberta, Canada, September 12-16, 2010.
42. Boris Jeremić, Nima Tafazzoli, Babak Kamrani, You-Chen Chao, Chang-Gyun Jeong, Panagiota Tasiopoulou, Kallol Sett, Annie Kammerer, Nebojša Orbović, and Andrei Blahoianu. On Seismic Soil Structure Interaction Simulations for Nuclear Power Plants. in proceedings of the OECD – NEA –

IAGE – ISSC Workshop on Soil Structure Interaction Knowledge and Effect on the Seismic Assessment of NPPs Structures and Components, Ottawa, Canada, 6-8 October 2010.

41. Mahdi Taiebat, Boris Jeremić, Yannis F. Dafalias and Amir M. Kaynia. Earthquake-Induced Shear Deformation of Slopes for Performance-Based Engineering in Performance-Based Design in Earthquake Geotechnical Engineering: From Case History to Practice (Kokusho, Tsukamoto, and Yoshimine, eds.), (Tsukuba, Japan), pp. 907-914, Taylor & Francis Group, London, 2009.
40. Kallol Sett and Boris Jeremić. Forward and Backward Probabilistic Simulations in Geotechnical Engineering Geotechnical Special Publication No. 186: Contemporary Topics in In Situ Testing, Analysis, and Reliability of Foundations (Proceedings of the International Foundations Congress and Equipment Expo), Magued Iskander, Debra F. Laefer, and Mohamad H. Hussein, Eds., Orlando, Florida, March 15-19, 2009. (pp. 332-339)
39. Boris Jeremić, Guanzhou Jie and Nima Tafazzoli. Numerical Modeling and Simulations of A Complete Earthquake-Soil-Pile-Bridge Seismic Performance Geotechnical Special Publication No. 186: Contemporary Topics in In Situ Testing, Analysis, and Reliability of Foundations (Proceedings of the International Foundations Congress and Equipment Expo), Magued Iskander, Debra F. Laefer, and Mohamad H. Hussein, Eds., Orlando, Florida, March 15-19, 2009. (pp. 190-197)
38. Zhao Cheng and Boris Jeremić. Numerical Modeling and Simulation of Soil Lateral Spreading Against Piles. Geotechnical Special Publication No. 186: Contemporary Topics in In Situ Testing, Analysis, and Reliability of Foundations (Proceedings of the International Foundations Congress and Equipment Expo), Magued Iskander, Debra F. Laefer, and Mohamad H. Hussein, Eds., Orlando, Florida, March 15-19, 2009. (pp. 183-189)
37. Mahdi Taiebat, Boris Jeremić and Amir M. Kaynia. Propagation of Seismic Waves through Liquefied Soils Geotechnical Special Publication No. 186: Contemporary Topics in In Situ Testing, Analysis, and Reliability of Foundations (Proceedings of the International Foundations Congress and Equipment Expo), Magued Iskander, Debra F. Laefer, and Mohamad H. Hussein, Eds., Orlando, Florida, March 15-19, 2009. (pp. 198-205)
36. Mahdi Taiebat, Boris Jeremić, Zhao Cheng and Yannis Dafalias. Numerical Simulation of Seismic Ground Motions Isolation Using Fully Coupled Nonlinear Response in Saturated Sands 4th Fourth Geotechnical Earthquake Engineering and Soil Dynamics Conference, Sacramento, California, May 19-22st, 2008.
35. Kallol Sett and Boris Jeremić. Soil Uncertainty and Seismic Ground Motion. 4th Fourth Geotechnical Earthquake Engineering and Soil Dynamics Conference, Sacramento, California, May 19-22st, 2008.
34. José Ugalde, Bruce Kutter, Boris Jeremić and Sivapalan Gajan. Centrifuge Modelling of Rocking Behaviour of Bridges on Shallow Foundations 4th International Conference on Earthquake Geotechnical Engineering, June 25-28 2007, Thessaloniki Greece.
33. Boris Jeremić, Guanzhou Jie and Matthias Preisig. Influence of Soil-Foundation-Structure Interaction on Seismic Response of Bridges 4th International Conference on Earthquake Geotechnical Engineering, June 25-28 2007, Thessaloniki Greece.

32. Boris Jeremić and Kallol Sett. Seismic Wave Propagation in Stochastic Soils 4th International Conference on Earthquake Geotechnical Engineering, June 25-28 2007, Thessaloniki Greece.
31. Zhao Cheng, Mahdi Taiebat, Boris Jeremić and Yannis Dafalias. Issues in Modeling and Simulation of Soil Liquefaction. 4th International Conference on Earthquake Geotechnical Engineering, June 25-28 2007, Thessaloniki Greece.
30. Boris Jeremić and Kallol Sett. Uncertain Soil Properties and Elastic–Plastic Simulations in Geomechanics. GeoDenver 2007, Geo Institute Annual Conference, Denver, Colorado, February, 2007.
29. Zhao Cheng, Mahdi Taiebat, Boris Jeremić and Yannis Dafalias. Modeling and Simulation of Saturated Geomaterials. GeoDenver 2007, Geo Institute Annual Conference, Denver, Colorado, February, 2007.
28. Guanzhou Jie, Matthias Preisig and Boris Jeremić. Benefits and Detriments of Soil Foundation Structure Interaction GeoDenver 2007, Geo Institute Annual Conference, Denver, Colorado, February, 2007.
27. Boris Jeremić and Kallol Sett. The Influence of Uncertain Material Parameters on Stress–Strain Response. Geotechnica Special Publications (In print), Proceedings of the Second Japan-U.S. Workshop on Testing, Modeling and Simulation in Geomechanics, September 8-11, 2005 Kyoto, Japan.
26. Stephen Mahin, Andreas Espinoza, Boris Jeremić and Bruce Kutter. Rocking Behavior of Bridge Piers Allowed to Rock: Implications for Design. Caltrans Bridge Research Conference 2005, October 31st – November 1st 2005, Sacramento, California. (paper # 08-503)
25. Sashi K. Kunnath, Boris Jeremić, Marc O. Eberhard, Armen Der Kiureghian and Keith Porter. Application of the PEER Performance-Based Methodology for Seismic Assessment of the I-880 Viaduct. Caltrans Bridge Research Conference 2005, October 31st – November 1st 2005, Sacramento, California. (paper # 04-503)
24. Alisa Neeman, Boris Jeremić and Alex Pang. Visualizing Tensor Fields in Geomechanics. IEEE Visualization Conference (Vis-05), October 23-28, 2005 Minneapolis-Saint Paul, Minnesota.
23. Boris Jeremić and Matthias Preisig. Seismic Soil–Foundation–Structure Interaction: Numerical Modeling Issues. ASCE Structures Congress 2005, New York, NY, U.S.A., April 20-24, 2005.
22. Zhao Cheng and Boris Jeremić A Return Mapping Algorithm for Isotropic and Anisotropic Large Deformations. Third M.I.T. Conference on Computational Fluid and Solid Mechanics, the Massachusetts Institute of Technology, Cambridge, MA, U.S.A., June 14 - 17, 2005.
21. Ingrid Hotz, Louis Feng, Hans Hagen, Bernd Hamann, Boris Jeremić, and Kenneth Joy. Physically Based Methods for Tensor Field Visualization IEEE Visualization 2004 Conference (Vis04), Austin, Texas, October 10-15 2004.
20. Boris Jeremić, Sashi Kunnath and Leah Larson. Soil–Foundation–Structure Interaction: Effects in Seismic Behavior of Bridges 13th World Conference on Earthquake Engineering, Vancouver, B.C., Canada, August 1-6, 2004.

19. Sharon L. Wood, Thalia Anagnos, Pedro Arduino, Marc O. Eberhard, Gregory L. Fenves. Thomas A. Finholt, Joseph M. Futrelle, Steven K. Grant, Boris Jeremić, Steven L. Kramer, Bruce L. Kutter, Adolfo B. Matamoros, Kurt M. McMullin, Julio A. Ramirez, Ellen M. Rathje, Mehdi Saiidi, David Sanders, Kenneth Stokoe, and Daniel W. Wilson. Using NEES to Investigate Soil–Foundation–Structure Interaction 13th World Conference on Earthquake Engineering, Vancouver, B.C., Canada, August 1-6, 2004.
18. Daniel W. Wilson, Ross W. Boulanger, Xin Feng, Bernd Hamann, Boris Jeremić, Bruce L. Kutter, Kwan-Liu Ma, Carlos Santamarina, Kenneth S. Sprott, Steven A. Velinsky, Gunther Weber and S. J. Ben Yoo. The Nees Geotechnical Centrifuge at UC Davis 13th World Conference on Earthquake Engineering, Vancouver, B.C., Canada, August 1-6, 2004.
17. Boris Jeremić. A Brief Overview of NEESgrid Simulation Platform OpenSees: Application to the Soil–Foundation–Structure Interaction Problems. Third United States - Japan Natural Resources Workshop on Soil-Structure Interaction, March 29-30, 2004, Vallombrosa Center, Menlo Park, California
16. Boris Jeremić. Position Paper on Nonlinear Soil properties. International Workshop on Uncertainties in Nonlinear Soil Properties and their Impact on Modeling Dynamic Soil Response, PEER Headquarters, UC Berkeley, March 18-19, 2004.
15. Boris Jeremić, James Putnam, Kallol Sett, Dana Humphrey and Stacey Patenaude. Calibration of Elastic-Plastic Material Model for Tire Shreds Geo-Trans 2004, Los Angeles, CA, July.
14. Boris Jeremić, Sashi Kunnath and Zhaohui Yang. Dynamic Soil-Foundation-Structure Interaction: Recent Advances in Simulating Realistic Systems ASCE Engineering Mechanics Conference, Seattle, Washington, USA, July 2003
13. Sashi Kunnath, Boris Jeremić, Anna von Felten and Keith Bauer. Simulation Models for Performance-Based Evaluation of the I-880 Highway Bridge ASCE Structures Congress, Seattle, Washington, USA, May 2003
12. Boris Jeremić and Niels Grønbech-Jensen. Shearing Materials of Spatially Extended Grains, 3rd International Conference on Discrete Element Methods, Santa Fe, New Mexico, USA, September 23-25, 2002
11. Boris Jeremić. Recent Developments in Computer Simulations and Visualization for Geotechnical Earthquake Engineering Problems, 12 pages, in Proceedings of the International Workshop on Earthquake Simulation in Geotechnical Engineering, CD–ROM, November, 2001, The George S. Dively Center, Case Western Reserve University, Cleveland, Ohio.
10. Key Rosebrook, Dan W. Wilson Boris Jeremić and Bruce Kutter. Centrifuge Characterization and Numerical Modeling of the dynamic properties of Tire Shreds for Use as Bridge Abutment Backfill Fourth International Conference On Recent Advances In Geotechnical Earthquake Engineering And Soil Dynamics, March 26-31, 2001 San Diego, CA USA
9. Boris Jeremić. Finite Element Methods for 3D Slope Stability Analysis. *ASCE Geotechnical Special Publications, No. 101, Slope Stability 2000, pages 224-238* August 2000. Editors D. V. Griffiths, Gordon A. Fenton and Timothy R. Martin.

8. Boris Jeremić, Zhaohui Yang and Tiejun Li. Large Scale, 3D Finite Element Analysis of Dynamic Soil-Foundation-Structure Interaction. Proceedings of the 14th ASCE Engineering Mechanics Specialty Conference, Austin, Texas, May 21-24, 2000.
7. Boris Jeremić, Christos Xenophontos and Stein Sture. Modeling of Continuous Localization of Deformation. Proceedings of the 13th ASCE Engineering Mechanics Specialty Conference, The Johns Hopkins University, Baltimore, MD, USA June 13-16, 1999.
6. Boris Jeremić and Jerry A. Yamamuro. Anisotropic Plasticity in Geomechanics. Proceedings of the *Fourth International Conference on Constitutive Laws for Engineering Materials: Experiment, Theory, Computation and Applications*, Rensselaer Polytechnic Institute, Troy, NY, USA July 27 – 30, 1999
5. Roy Swanson, Khalid AL-Shibli, Melissa Frank, Nicholas Costes, Stein Sture, Susan Batiste, Mark Langton, and Boris Jeremić. Mechanics of granular materials in microgravity at low effective stresses. *Proceedings of the Spring Meeting of the American Geophysical Union*, 1998.
4. Boris Jeremić, Kenneth Runesson, and Stein Sture. Large deformation constitutive integration algorithm. In the Proceedings of *the 12th ASCE Engineering Mechanics Conference*, 1029-1032, La Jolla, California, May 1998.
3. Boris Jeremić, Kenneth Runesson, and Stein Sture. Large deformation elastoplastic analysis of geomaterials: From experiments to numerical predictions. In *Ninth International Conference of The Association for Computer Methods and Advances in Geomechanics*, Jian-Xin Yuan, editor, Wuhan, China, 1997.
2. Boris Jeremić and Stein Sture. Refined finite element analysis of geomaterials. In *Proceedings of 11th Engineering Mechanics Conference*, Y. K. Lin and T. C. Su, editors, pages 555–558, Fort Lauderdale, Florida, May 1996. Engineering Mechanics Division of the American Society of Civil Engineers.
1. Boris Jeremić and Stein Sture. Implicit integrations in geoplasticity. In *Proceedings of 10th Conference*, Stein Sture, editor, pages 1099–1102, Boulder, Colorado, May 1995. Engineering Mechanics Division of the American Society of Civil Engineers.

Reports and Other Major Publications

41. Yuan Feng and Boris Jeremić. Cosserrat Continuum: Solids and Elasto-Plasticity. UCD–ESSI–02–2021.
40. Yuan Feng and Boris Jeremić. Hight Performance Computing for ESSI Problems. UCD–ESSI–01–2021.
39. Boris Jeremić, Han Yang, Hexiang Wang and Bret Lizundia. Direct Analysis Soil-Structure Interaction Case Studies for the ATC-144 Project. (PDF)
38. Sumeet Kumar Sinha and Boris Jeremić. Soft and Hard Interface/Contact/Joint Modeling for Rock, Soil, Concrete and Steel Interfaces. UCD–CompGeoMech–05–2017.
37. José Abell, Sumeet Kumar Sinha, Yuan Feng and Boris Jeremić. Real ESSI Simulator Executable Build Procedures. UCD–CompGeoMech–04–2017.
36. José Abell, Sumeet Kumar Sinha, Yuan Feng and Boris Jeremić. Real ESSI Simulator Output Formats. UCD–CompGeoMech–03–2017.
35. José Abell, Yuan Feng, Sumeet Kumar Sinha, Fatemah Behbehani and Boris Jeremić Real ESSI Simulator Domain Specific Language (DSL) UCD–CompGeoMech–02–2017.
34. Fatemah Behbehani and Boris Jeremić, Theoretical and Numerical Modeling of Unsaturated Soil Using Fully Coupled Finite Element Formulation. UCD–CompGeoMech–01–2017.
33. Boris Jeremić, Development of Analytical Tools for Soil-Structure Analysis. Report to the Canadian Nuclear Safety Commission. March 2016. (Available from the CNSC-CCSN)
32. Boris Jeremić, Development of Analytical Tools for Soil-Structure Analysis. Report to the Canadian Nuclear Safety Commission. March 2016. (Available from the CNSC-CCSN)
31. Boris Jeremić, Methods, Computation Platform, and Case Studies for Time-Domain Soil-Structures-Interaction Modeling and Simulation Incorporating Complex Seismic Loads. Report to the US Nuclear Regulatory Commission. October 2015. (Available from the US-NRC)
30. Federico Pisanò and Boris Jeremić. Cyclic Behavior of Soil and Rock for Seismic Modeling and Simulation of Small Modular Reactors. Report to the US Department of Energy. October 2012. (not for public distribution, available from the US DOE)
29. Boris Jeremić (with contributions by: Sashi K. Kunnath, Norman A. Abrahamson Timothy D. Ancheta and Nima Tafazzoli). Assessment of Seismic Input and Soil Structure Interaction for Deeply Embedded, Large Foundations. Report to the Canadian Nuclear Safety Commission (CNSC), March 2011. (not for public distribution, available from the CNSC)
28. Boris Jeremić and Charikleia Prassa. Time Domain Modeling and Simulation of Soil – Retaining Wall Interaction with and without the Sound Wall. Report to California Department of Transportation (Caltrans), January 2011. (available from Caltrans)

27. Boris Jeremić, Nima Tafazzoli, Babak Kamrani, Panagiota Tasiopoulou and Chang-Gyun Jeong. Investigation of Analysis Methods to Incorporate Multi-Dimensional Loading and Incoherent Ground Motions in Soil-Structure Interaction Analysis Report to the US – Nuclear Regulatory Commission (NRC), September 2010. (available from the US-NRC)
26. Boris Jeremić. Comparison of 2D vs 3D Slope Stability for the Wolf Creek Dam. Report to USACE, June 2010. (not for public distribution)
25. Boris Jeremić. Elastic-Plastic Modeling and Simulation of Intact Rock. Report to LACHEL FELICE & Associates, January 2010. (not for public distribution)
24. Boris Jeremić and Guanzhou Jie. Plastic Domain Decomposition Method for Parallel Elastic–Plastic Finite Element Computations in Geomechanics Report UCD CompGeoMech 03–2007. (PDF)
23. Boris Jeremić and Guanzhou Jie. Parallel Finite Element Computations for Soil–Foundation—Structure Interaction Problems Report UCD CompGeoMech 02–2007. (PDF)
22. Boris Jeremić, Zhao Cheng and Mahdi Taiebat. Coupled (fluid–porous solid) soil modeling and simulations. Report UCD CompGeoMech 01–2007.
21. Boris Jeremić, Kallol Sett and M. Levent Kavvas. Probabilistic Elasto-Plasticity: Solution and Verification in 1D. Report UCD CompGeoMech 02–2005. (PDF)
20. Boris Jeremić, Kallol Sett and M. Levent Kavvas. Probabilistic Elasto-Plasticity: Formulation in 1D. Report UCD CompGeoMech 01–2005. (PDF)
19. Boris Jeremić. Neobično ponašanje materijala i konstrukcija. Monografija u čast 85. godina rođena profesora Milana Djurić-a, Gradjevinski Fakultet Univerziteta u Beogradu, 2005. Non-intuitive Behavior of Materials and Structures. Monograph in honour of 85 years since the birth of Professor Milan Djurić, Civil Engineering Faculty, University of Belgrade, 2005, in Serbian.
18. Boris Jeremić. Lecture Notes on Computational Geomechanics (aka Inelastic Finite Elements for Pressure Sensitive Materials) University of California, Davis, 2000–2004.
17. Boris Jeremić, James Putnam, Zhaohui Yang, Kallol Sett, Jinxiu Liao, Guanzhou Jie. Final Report: Earthquake Response of Bridge Abutment Backfills Constructed with Tire Shreds. University of California, Davis, April 2004.
16. Boris Jeremić, Qing Liu and Xiaoyan Wu. Theoretical Formulation, Computer Implementation and Verification of Fully Coupled, Solid-Fluid, Dynamic Behavior of Soils University of California, Davis, June 2004.
15. Boris Jeremić and Ritu Jain. The Plastic Domain Decomposition Method in Parallel Computational Geomechanics. University of California, Davis, March 2004.
14. Boris Jeremić, James Putnam, Zhaohui Yang, Kallol Sett, Jinxiu Liao, Guanzhou Jie. Interim Report: Earthquake Response of Bridge Abutment Backfills Constructed with Tire Shreds. University of California, Davis, September 2003.

13. Silvia Mazzoni, Frank McKenna, Michael H. Scott, Gregory L. Fenves and Boris Jeremić. Open System for Earthquake Engineers Simulation: User Manual. Pacific Earthquake Engineering Research Center, University of California, Berkeley, December 2002.
<http://peer.berkeley.edu/~silvia/OpenSees/manual/html2/>
12. Boris Jeremić. Development of Geotechnical Capabilities in G3, report # PEER – 2132000-3. Pacific Earthquake Engineering Research Center University of California, Berkeley, September 2001.
11. Boris Jeremić, Dan W. Wilson Key Rosebrook and Zhaohui Yang. Centrifuge Characterization and Numerical Modeling of the dynamic properties of Tire Shreds for Use as Bridge Abutment Backfill Center for Geotechnical Modeling Report No. UCD CGM-00/01, May 2000.
10. Boris Jeremić, Michael Akers, Kevin Makles and Nathan Straz. Beowulf class parallel computer for large scale computations in geomechanics: Design and construction. Progress report, Clarkson University, 1998.
9. Boris Jeremić. Finite Deformation Hyperelasto–plasticity of Geomaterials. PhD thesis, University of Colorado at Boulder, July 1997.
8. Dunja Perić, Boris Jeremić, Teng-Fung Yang, Stein Sture, Hon-Yim. Ko, and Y. Atsushi. The elasto plastic material model: Model description and numerical predictions. Report to: VELACS extension project for the M.I.T. meeting, October 30-31, 1995.
7. Boris Jeremić and Stein Sture. Finite element implementation of elasto plastic material model. Report to: NASA, Marshall Space Flight Center, Contract: NAS8-38779, University of Colorado at Boulder, May 1995.
6. Boris Jeremić, Roy Swanson, Stein Sture, Khalid Al–Shibli, and Runing Zhang. Automation of digitization process for recording grid displacement. Report to NASA Marshall Space Flight Center, Contract: NAS8-38779, University of Colorado at Boulder, September 1994.
5. Boris Jeremić. Implicit integration rules in plasticity: Theory and implementation. Master's thesis, University of Colorado at Boulder, May 1994.
4. Boris Jeremić, Khalid Al–Shibli, Runing Zhang, Roy Swanson, and Stein Sture. Static and dynamic testing of MGM triaxial specimens. Report to NASA Marshall Space Flight Center, Contract: NAS8-38779, University of Colorado at Boulder, February 1994.
3. Boris Jeremić. nDarray Programming Tool. Object Oriented Approach to Numerical Computations in Elastoplasticity, Reference Manual, University of Colorado at Boulder, December 1993.
2. Boris Jeremić. Nonlinear Effects in Structures: Report to PAK group, Kragujevac, May 1992, In Serbian.
1. Boris Jeremić. "Dynamic Analysis of Axisymmetric Solids Subjected to Non-Symmetric Loading by the Finite Element Method", Diploma Thesis, July 1989, Faculty of Civil Engineering, Belgrade University, In Serbian.

Technical Presentations

NOTE: Recent presentations are available in LaTeX and PDF below. It is suggested to open links to PDFs using Google-Chrome, as all links and animations will then work. Alternatively, please save PDFs on your local computer and then view them using Google-Chrome.

200. Boris Jeremić. Assessing and Increasing Resilience of Nuclear Energy Facilities for Dynamic, Seismic Loads. DOE-NRC Natural Phenomena Hazards Meeting, Rockville. MD, 29-30 October 2024.[\(PDF\)](#)
199. Boris Jeremić. Assessing and Increasing Resilience of Soil-Structure Systems for Seismic Loads. International Workshop Computational Dynamic Soil-Structure Interaction (CompDSSI), Assisi, Italy, (zoom presentation), 11-13 September 2024.[\(PDF\)](#)
198. Boris Jeremić. Energy Balance for Static and Dynamic Loads on Soil-Structure Interacting Systems. WCEE, 18th World Conference on Earthquake Engineering, Milano, Italy 30 June - 05 July 2024.[\(PDF\)](#)
197. Boris Jeremić. Stress Test Motions for Soil-Structure Systems. WCEE, 18th World Conference on Earthquake Engineering, Milano, Italy 30 June - 05 July 2024.[\(PDF\)](#)
196. Boris Jeremić. Verification & Validation (V&V) Process in Engineering Numerical Analysis. USSD, United States Society on Dams Annual Conference and Exhibition, Seattle, Washington, USA. 24-26 April, 2024.[\(PDF\)](#)
195. Boris Jeremić. SMATCH Benchmark, Cruas NPP Analysis. Structural Mechanics in Reactor Technology (SMiRT) 27 Conference, Yokohama, Japan, 03-08 March 2024.[\(PDF\)](#)
194. Boris Jeremić. Aleatory Uncertainties in Computational Earthquake Engineering. The Tenth Kwang-Hua Forum, Tongji University, Shanghai, China, 8-10 December 2023.[\(PDF\)](#)
193. Boris Jeremić. Fully Coupled FEM Analysis. Workshop on Advances in Soil Liquefaction Engineering, Tongji University, Shanghai, China, (zoom presentation), 01Nov2023.[\(PDF\)](#)
192. Boris Jeremić. Plastic Energy Dissipation for Steel Building with BRBs The Seventeenth International Conference on Civil, Structural and Environmental Engineering Computing, CIVIL-COMP 2023, Pécs, Hungary, 28-31 August 2023.[\(PDF\)](#)
191. Boris Jeremić and Chanseok Jeong. Development of Realistic Seismic Input Motions for Improving the Resilience of Infrastructures to Earthquakes. NIST/NSF 2023 Disaster Resilience Symposium, Washington DC, 23-24 August 2023.[\(PDF\)](#)
190. Boris Jeremić. Engineering Analysis Toolbox, The Real-ESSI Simulator System. The 5th South-East European Conference on Computational Mechanics (SEECCM), ECCOMAS Special Interest Conference, Vrnjačka Banja, Serbia, 5-7 July 2023.[\(PDF\)](#)
189. Boris Jeremić and Han Yang. Three Dimensional, Three Component Seismic Wave Field Reconstruction from Limited Surface Measurements, 3D-Deconvolution. 9th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (CompDyn2023), Athens, Greece, 12-14 June 2023.[\(PDF\)](#)

188. Boris Jeremić. Epistemic and Aleatory Uncertainties in Numerical Analysis of Earthquake Soil Structure Interaction. NHERI Lehigh Seminar Series, zoom presentation, 11May 2023.[\(PDF\)](#)
187. Boris Jeremić, Hexiang Wang and Han Yang. Probabilistic Seismic Risk Analysis for Inelastic Soil-Structure Systems US-DOE/US-NRC, Natural Phenomena Hazards (NPH) Conference, North Bethesda, MD, USA, 18-19 October 2022.[\(PDF\)](#)
186. Boris Jeremić, Chanseok Jeong. Collaborative Research: Development of Realistic Seismic Input Motions for Improving the Resilience of Infrastructures to Earthquakes NIST/NSF 2022 Disaster Resilience Symposium, NIST, Washington DC, online meeting, 14-15 September 2022.[\(PDF\)](#)
185. Boris Jeremić, Han Yang. Full Seismic Wave Inversion in 3D for ESSI Analysis Structural Mechanics in Reactor Technology (SMiRT) 26 Conference, Potsdam/Berlin, Germany, 11-18 July 2022.[\(PDF\)](#)
184. Boris Jeremić, Hexiang Wang, Han Yang and Fangbo Wang. Time Domain, Intrusive Probabilistic Seismic Risk Analysis of Nonlinear Earthquake Soil Structure Interaction Systems Structural Mechanics in Reactor Technology (SMiRT) 26 Conference, Potsdam/Berlin, Germany, 11-18 July 2022.[\(PDF\)](#)
183. Boris Jeremić, Han Yang and Hexiang Wang. Seismic Energy Flow and Balance in Earthquake Soil Structure Interaction, ESSI Systems Structural Mechanics in Reactor Technology (SMiRT) 26 Conference, Potsdam/Berlin, Germany, 11-18 July 2022.[\(PDF\)](#)
182. Boris Jeremić. Deterministic and/or Probabilistic, Time Domain, Nonlinear, Inelastic Earthquake Soil Structure Interaction, ESSI Modeling and Simulation Structural Mechanics in Reactor Technology (SMiRT) 26 Conference, Potsdam/Berlin, Germany, 11-18 July 2022.[\(PDF\)](#)
181. Boris Jeremić. Quality Assurance of Inelastic Numerical Analysis for Soils and Structures IFNFEES02, 2nd International Forum of NFEES on Artificial Intelligence & Disaster Prevention and Mitigation, Tianjin University, China, 01-02 July, 2022.[\(PDF\)](#)
180. Boris Jeremić, Hexiang Wang and Han Yang. Base Slab Averaging and Inelastic Effects in Soil-Structure Interaction Behavior of Mat-Slab Founded Structures, Effects on Reduction of Seismic Demand 12th National Conference on Earthquake Engineering, Salt Lake City, UT, USA, 27 June - 01 July, 2022.[\(PDF\)](#)
179. Boris Jeremić and Jerzy Salamon. Verification for Numerical Analysis of Concrete Dams. USSD Annual Conference and Exhibition, San Diego, CA, USA, 11-14 April, 2022.[\(PDF\)](#)
178. Boris Jeremić, Hexiang Wang and Han Yang. Probabilistic Seismic Risk Analysis for Inelastic Soil-Structure Systems. ASCE Lifelines Conference, UCLA, 11 Feb 2022.[\(PDF\)](#)
177. Boris Jeremić. Time Domain Nonlinear Earthquake Soil Structure Interaction Analysis. ASCE-4 Seminar, 07 December 2021.[\(PDF\)](#)
176. Boris Jeremić. Forward and Backward Uncertainty Propagation in Computational Earthquake Engineering. Tianjin University, Tianjin, China, 24 November 2021.[\(PDF\)](#)
175. Boris Jeremić. Seismic Soil Structure Interaction for Design and Assessment of Nuclear Installations. United Nations, International Atomic Energy Agency, External Events Safety Section, Extra-Budgetary Program, 15th Plenary Meeting, 05-08 October 2021.[\(PDF\)](#)

174. Boris Jeremić. Realistic Modeling and Simulation of Earthquakes, Soil, Structures and their Interaction. Duke University, Durham, NC, 13 September 2021.[\(PDF\)](#)
173. Boris Jeremić. Forward and Backward Uncertainty Propagation in Computational Earthquake Engineering 8th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (CompDyn2021), Athens, Greece, 28-30 June 2021.[\(PDF\)](#)
172. Boris Jeremić. Validation Experiments for Earthquake Soil Structure Interaction Modeling and Simulation DOE-PEER Workshop on Large Scale Shake Table Testing of SSI, 17-18 April 2021.[\(PDF\)](#)
171. Boris Jeremić. A Road Map for Seismic Analyses of Concrete Dam-Rock-Reservoir Systems USSD 2021 Annual Conference, April 2021.[\(PDF\)](#)
170. Boris Jeremić. Uncertainties in Modeling and Simulation of Earthquakes, Soils, Structures and their Interaction. University of Colorado, Boulder, student organized seminar series, 2nd April 2021.[\(PDF\)](#)
169. Boris Jeremić, and Jerzy Salamon. Road Map for Advanced Structural Analysis of Concrete Dams. ICOLD Symposium on Sustainable Development of Dams and River Basins, New Delhi, India, 24-27 February 2021.[\(PDF\)](#)
168. Boris Jeremić. Нумеричко моделовање интеракције конструкције и тла у земљотресном инжењерству: Конструкција. Numerical Modeling of Soil Structure Interaction in Earthquake Engineering: Structure. Српско Удружење за земљотресно инжењерство, СУЗИ, Serbian Association for Earthquake Engineering, SAEE, Online, zoom workshop, Davis-Belgrade, 17 September 2020.[\(PDF\)](#)
167. Boris Jeremić. Нумеричко моделовање интеракције конструкције и тла у земљотресном инжењерству: Тло. Numerical Modeling of Soil Structure Interaction in Earthquake Engineering: Soil. Српско Удружење за земљотресно инжењерство, СУЗИ, Serbian Association for Earthquake Engineering, SAEE, Online, zoom workshop, Davis-Belgrade, 17 September 2020.[\(PDF\)](#)
166. Boris Jeremić. Нумеричко моделовање интеракције конструкције и тла у земљотресном инжењерству: Земљотрес. Numerical Modeling of Soil Structure Interaction in Earthquake Engineering: Earthquake. Српско Удружење за земљотресно инжењерство, СУЗИ, Serbian Association for Earthquake Engineering, SAEE, Online, zoom workshop, Davis-Belgrade, 17 September 2020.[\(PDF\)](#)
165. Boris Jeremić. Modeling and Simulation of Static and Dynamic Behavior of Earthquake Soil Structure Systems. Macedonian Association for Geotechnical Engineers, Macedonian Association for Dams, University of Kiril and Metodi. Online, zoom presentation, Davis - Skopje, 09Jun2020 2020.[\(PDF\)](#)
164. Boris Jeremić. Нумеричка анализа интеракције тла и конструкције услед дејства земљотреса. Numerical Analysis of Interaction of Soil and Structures due to Earthquake Effects. Српско Удружење за земљотресно инжењерство, СУЗИ, Serbian Association for Earthquake Engineering, SAEE, Online, zoom presentation, Zürich-Belgrade, 23 April 2020.[\(PDF\)](#)
163. Boris Jeremić. The Real-ESSI Simulator System. Winter School, "From research to practise in geotechnical engineering", Centro Stefano Franscini, Monte Verità, Ascona, Ticino, CH, 12 - 17 January 2020.[\(PDF\)](#)

162. Boris Jeremić. Uncertainties in Modeling and Simulation of Earthquakes, Soils, Structures and their Interaction. Winter School, "From research to practise in geotechnical engineering", Centro Stefano Franscini, Monte Verità, Ascona, Ticino, CH, 12 - 17 January 2020.[\(PDF\)](#)
161. Boris Jeremić. Modeling and Simulation of Dam Foundation Reservoir System. Hydro-Québec, Montréal, Québec, Canada, 04 December 2019.[\(PDF\)](#)
160. Boris Jeremić. Guidelines for Structural Analysis of Concrete Dams. The Centre for Energy Advancement through Technological Innovation (CEATI) International Inc., Dam Safety Interest Group, General Meeting, Orange County, California, 30 September - 01 October 2019.[\(PDF\)](#)
159. Boris Jeremić. Modeling and Simulation of Earthquake Soil/Rock Structure Interaction. 15th International Benchmark Workshop on Numerical Analysis of Dams, ICOLD-BW, Politecnico di Milano, Milano, Italy, 9-11 September 2019.[\(PDF\)](#)
158. Boris Jeremić. Nuclear Installation Lifecycle: Modeling and Simulation of Design Basis and Beyond Design Basis ESSI Behavior. Structural Mechanics in Reactor Technology, SMiRT 25, Conference, Charlotte, NC, USA, 04-08 August 2019.[\(PDF\)](#)
157. Boris Jeremić. Seismic Energy Flow Calculations for Earthquake Soil Structure Interaction Systems. Structural Mechanics in Reactor Technology, SMiRT 25, Conference, Charlotte, NC, USA, 04-08 August 2019.[\(PDF\)](#)
156. Boris Jeremić. Time Domain Seismic Risk Analysis Framework for Nuclear Installations. Structural Mechanics in Reactor Technology, SMiRT 25, Conference, Charlotte, NC, USA, 04-08 August 2019.[\(PDF\)](#)
155. Boris Jeremić. Stochastic Site Response Analysis Through Uncertain Elasto-Plastic Soil. Structural Mechanics in Reactor Technology, SMiRT 25, Conference, Charlotte, NC, USA, 04-08 August 2019.[\(PDF\)](#)
154. Boris Jeremić. Stress Test Seismic Motions for Nuclear Installations. Structural Mechanics in Reactor Technology, SMiRT 25, Conference, Charlotte, NC, USA, 04-08 August 2019.[\(PDF\)](#)
153. Boris Jeremić. The Real-ESSI Simulator System. Structural Mechanics in Reactor Technology, SMiRT 25, Conference, Charlotte, NC, USA, 04-08 August 2019.[\(PDF\)](#)
152. Boris Jeremić. Modeling and Simulation of Earthquake Soil Structure Interaction. Shijiazhuang Tiedao University, Shijiazhuang, China, 16 July 2019.[\(PDF\)](#)
151. Boris Jeremić. Modeling and Simulation of Earthquake Soil Structure Interaction. University of Science and Technology Beijing Seminar Series, Beijing, China, 14 July 2019.[\(PDF\)](#)
150. Boris Jeremić. Seismic Risk Analysis: Time Domain, Intrusive, Stochastic Elastic Plastic Finite Element Method. 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (CompDyn2019), Rhodes Island, Greece, 24-26 June 2019.[\(PDF\)](#)
149. Boris Jeremić. Modeling and Simulation Earthquake Soil Structure Interaction. United States Society on Dams, Congress, Chicago IL, USA, 9-11 April, 2019.[\(PDF\)](#)
148. Boris Jeremić. Computational Modeling and Simulation of Earthquake Soil Structure Interaction Behavior of Nuclear Installations. CNERDWG Meeting, Argonne National Laboratory, Lemont, IL, USA, 9-10 April, 2019.[\(PDF\)](#)

147. Boris Jeremić. The Real-ESSI Simulator System: Status Report. USA-Japan Collaboration Meeting, Lawrence Berkeley National Laboratory, Berkeley, CA, USA, 14 March, 2019.[\(PDF\)](#)
146. Boris Jeremić. Realistic Modeling and Simulation of Earthquakes, Soils, Structures and their Interaction. Eighth Kwang-Hua Forum on Innovations and Implementations in Earthquake Engineering Research Area, State Key Laboratory of Disaster Prevention in Civil Engineering, International Laboratory for Earthquake Engineering (ILEE), Tongji University, Shanghai, China, 14-16 December, 2018.[\(PDF\)](#)
145. Boris Jeremić. Modeling and Simulation of Static and Dynamic Behavior of Soil Structure Systems. Short Course on Computer Methods and Constitutive Modeling in Geomechanics, with Prof. C.S. Desai and Prof. K. El-Hoseiny, Second GeoMEast Conference, Cairo, Egypt 24-28 November, 2018.[\(PDF\)](#)
144. Boris Jeremić. Beneficial and Detrimental Effects of Earthquake Soil Structure Interaction. Second GeoMEast Conference, Cairo, Egypt 24-28 November, 2018.[\(PDF\)](#)
143. Boris Jeremić. Modeling and Simulation of Earthquake Soil Structure Interaction for Nuclear Installations. DOE/NRC Natural Phenomena Hazard Meeting, North Bethesda, MD, U.S.A. 23-24 October, 2018.[\(PDF\)](#)
142. Boris Jeremić. Modeling and Simulation of Static and Dynamic Behavior of Soil Structure Systems. United States Bureau of Reclamation, Denver, CO, U.S.A. 22 August, 2018.[\(PDF\)](#)
141. Boris Jeremić. High Fidelity Modeling and Simulation of Earthquake Soil Structure Interaction Effects for Infrastructure Objects. World Congress on Computational Mechanics, New York, NY, U.S.A. 22-27 July, 2018.[\(PDF\)](#)
140. Boris Jeremić. 3D Nonlinear Earthquake Soil Structure Interactions for Nuclear Installations. 11th National Conference on Earthquake Engineering, Los Angeles, CA, U.S.A. 25-29 June, 2018.[\(PDF\)](#)
139. Boris Jeremić. MS-ESSI for Professional Practice. Eidgenössischen Nuklearsicherheitsinspektorats (ENSI), Inspection fédérale de la sécurité nucléaire (IFSN), Ispettorato federale della sicurezza nucleare (IFSN), Technical Seminar Series, Brugg, Switzerland, 18 May, 2018.[\(PDF\)](#)
138. Boris Jeremić. Modeling and Simulation of Earthquakes, Soils, Structures and their Interaction. Eidgenössische Technische Hochschule (ETH) Zürich, Seminar Series. Zurich, Switzerland, 17 May, 2018.[\(PDF\)](#)
137. Boris Jeremić. Modeling and Simulation of Earthquakes, Soils, Structures and their Interaction. Workshop on Best Practices in Physics-Based Fault Rupture Models for Seismic Hazard Assessment of Nuclear Installations (Best-PSHANI), Château de Cadarache, France, 16 May, 2018.[\(PDF\)](#)
136. Boris Jeremić. Modeling and Simulation of Earthquakes, and Soils, and Structures and their Interaction using Real ESSI Simulator System. ARUP, San Francisco, California, USA, 15 February, 2018.[\(PDF\)](#)
135. Boris Jeremić. Hierarchical, High Fidelity Modeling and Simulation of Static and Dynamic Behaviour of Soil Structure Systems. Ørsted Energy, Copenhagen, Denmark, 15 January, 2018.[\(PDF\)](#)
134. Boris Jeremić. Realistic Modeling and Simulation of Earthquake Soil Structure Interaction. United Nations, International Atomic Energy Agency, Department of Nuclear Safety and Security, Division of Nuclear Installation, External Events Safety Section, Vienna, Austria, 12 January, 2018.[\(PDF\)](#)

133. Boris Jeremić. Real ESSI Simulator, Inelastic Modeling and Simulations for Soils, Contacts and Structures. Real ESSI Short Course, San Francisco, CA, USA, 12-14 December 2017. (Available to participants only)
132. Boris Jeremić. Real ESSI Simulator, Seismic Ground Motions. Real ESSI Short Course, San Francisco, CA, USA, 12-14 December 2017. (Available to participants only)
131. Boris Jeremić. Real ESSI Simulator, Intro, Setup and Staged Nonlinear Modeling. Real ESSI Short Course, San Francisco, CA, USA, 12-14 December 2017. (Available to participants only)
130. Boris Jeremić. Soil Structure Interaction – Case Studies, Models and Results. UN-IAEA Mission to SNSA, Ljubljana, Slovenia, 14-16 November, 2017. (Available from the UN-IAEA)
129. Boris Jeremić. Soil Structure Interaction – Frequency and Time Domain Analysis. UN-IAEA Mission to SNSA, Ljubljana, Slovenia, 14-16 November, 2017. (Available from the UN-IAEA)
128. Boris Jeremić. Soil Structure Interaction – Site Response Analysis. UN-IAEA Mission to SNSA, Ljubljana, Slovenia, 14-16 November, 2017. (Available from the UN-IAEA)
127. Boris Jeremić. 3D vs 1D vs 3x1D Ground Motions and the Earthquake Soil Structure Interaction. Structural Mechanics in Reactor Technology (SMiRT) 24 Conference, Busan, Republic of Korea, 20-25 August, 2017.(PDF)
126. Boris Jeremić. Nonlinear effects in Earthquake Soil Structure Interaction of Nuclear Power Plants. Structural Mechanics in Reactor Technology (SMiRT) 24 Conference, Busan, Republic of Korea, 20-25 August, 2017.(PDF)
125. Boris Jeremić. Nonlinear Earthquake Soil Structure Interaction Analysis for Small Modular Reactors. Structural Mechanics in Reactor Technology (SMiRT) 24 Conference, Busan, Republic of Korea, 20-25 August, 2017.(PDF)
124. Boris Jeremić. Verification for the Real ESSI Simulator. Structural Mechanics in Reactor Technology (SMiRT) 24 Conference, Busan, Republic of Korea, 20-25 August, 2017.(PDF)
123. Boris Jeremić. Stochastic Elastic-Plastic Finite Element Method: Recent Advances and Developments. 4th South-East European Conference on Computational Mechanics, ECCOMAS Special Interest Conference, 3-5 July 2017.(PDF)
122. Boris Jeremić. Моделовање еласто-пластичних система применом теорије вероватноћа. (Modeling of elastic-plastic systems using theory of probability). Институт за водопривреду "Јарослав Черни" Београд, Србија, Institute for Water Resources, "Jaroslav Černi" Belgrade, Serbia, 29th June 2017.(PDF)
121. Boris Jeremić. Site Specific Dynamics of Structures: From Seismic Source to the Safety of Occupants and Content (Plenary Lecture). 6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (CompDyn2017), Rhodes Island, Greece, 14-17 June 2017.(PDF)
120. Boris Jeremić. Advancement in Earthquake Soil Structure Interaction (ESSI) Modeling and Simulation. 2017 Pacific Rim Forum, Earthquake Resilience of Nuclear Facilities, University of California, Berkeley, California, 24th January 2017.(PDF)

119. Boris Jeremić. Динамика тла и конструкције при земљотресима, непоуздани модели, непоуздани параметри и теорија вероватноћа, (Dynamics of Soils and Structures During Earthquakes, Uncertain Models, Uncertain Parameters and Theory of Probability). Институт за Испитивање Материјала Србије и Грађевински Факултет Универзитета у Београду, Београд, Србија, 16-ти Децембар, 2016, Institute for Testing of Materials, and Civil Engineering Faculty of the University of Belgrade, Belgrade, Serbia, 16th December 2016.(PDF)
118. Boris Jeremić. On Modeling Uncertainty in Earthquake Soil Structure Interaction Analysis. Seventh Kwang-Hua Forum on Innovations and Implementations in Earthquake Engineering Research Area, State Key Laboratory of Disaster Prevention in Civil Engineering, International Laboratory for Earthquake Engineering (ILEE), Tongji University, Shanghai, China, 9 December, 2016.(PDF)
117. Boris Jeremić. The Real ESSI Simulator. US-DOE, Office of Nuclear Energy, Washington DC, 8 June, 2016. (not for public distribution)
116. Boris Jeremić. Real ESSI Simulator, High Performance Computing Issues. US-DOE, Office of Science, Washington DC, 12 May, 2016. (not for public distribution)
115. Boris Jeremić. Development of Analytical Tools for Soil-Structure Interaction Analysis. Canadian Nuclear Safety Commission (CNSC), Ottawa, Ontario, Canada, 04 March, 2016. (not for public distribution)
114. Boris Jeremić. Inelastic Earthquake Soil Structure Interaction Modeling and Simulations at UCD and LBNL. IAEA, UN, Vienna. Austria, 24 February, 2016. (not for public distribution)
113. Boris Jeremić. Modelling and Simulation Uncertainty. Computational Mechanics Working Group Seminar Series, University of California, Davis, California, 16 February, 2016.(PDF)
112. Boris Jeremić. Uncertainties in Modelling and Simulation of Earthquake Soils Structures Interaction. Earthquake Engineering Institute, University of Tokyo, Tokyo, Japan, 25 January, 2016.(PDF)
111. Boris Jeremić. Modelling and Simulation of Static and Dynamic Soils Structures Interaction Under Uncertainty. Technical Seminar Series, Géodynamique et Structure, Bagnaux, France, 23 November 2015.(PDF)
110. Boris Jeremić. Wavelet Based Synthetic Earthquake Sources for Path and Soil Structure Interaction Modeling: Stress Testing of Nuclear Power Plant. Workshop on Best Practices in Physics-Based Fault Rupture Models for Seismic Hazard Assessment of Nuclear Installations (BestPSHANI),8 IAEA Headquarters, Vienna, Austria, 18-20 November 2015.(PDF)
109. Boris Jeremić. Modelling and Simulation of Earthquake Soils Structures Interaction Under Uncertainty. International Scientific Collaboration Meeting, Southwest Jiaotong University, Chengdu, China, 12-13 October 2015.(PDF)
108. Boris Jeremić. Non-linear Soil-Structure Interaction: Benefits and Issues (Special Session on Nonlinear Soil Structure Interaction Behavior of NPPs). Structural Mechanics in Reactor Technology (SMiRT) 23 Conference, Manchester, UK, 10-14 August, 2015.(PDF)
107. Boris Jeremić. Use of Nonlinear, Time Domain Analysis for Design. Structural Mechanics in Reactor Technology (SMiRT) 23 Conference, Manchester, UK, 10-14 August, 2015.(PDF)

106. Boris Jeremić. Nonlinear Simulations for Soil-Structure Interaction and Performance-Based Design. 2015 UC Pacific Rim Forum, Earthquake Resilience of Nuclear Facilities, University of California, Berkeley, California, 8-9 June 2015.[\(PDF\)](#)
105. Boris Jeremić. Dynamics of Soils and Structures under Uncertainty. 5th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (CompDyn2015), Crete Island, Greece, 25-27 May 2015.[\(PDF\)](#)
104. Boris Jeremić. Earthquake Soil Structure Interaction Modeling and Simulation. Southern California Earthquake Center (SCEC), Workshop on Integration of 3D Nonlinear Site Effects in Physics-Based Ground Motion Simulations, SCEC Headquarters, University of Southern California, Los Angeles, CA, U.S.A. 5th May 2015.[\(PDF\)](#)
103. Boris Jeremić. Real ESSI Modeling and Simulation: Reduction of Modeling Uncertainty. Civil Nuclear Energy Research and Development Working Group, USA-Japan (CNerDWG), meeting, Argonne National Laboratory, Lemont IL. U.S.A. 27th-29th January, 2015.[\(PDF\)](#)
102. Boris Jeremić. Real Earthquake Soil Structure Interaction (Real ESSI) Modeling and Simulation. PRENOLIN workshop, Nice France, 15th-17th December, 2014.[\(PDF\)](#)
101. Boris Jeremić. Nonlinear Time Domain Modeling and Simulation of Surface and Embedded NPPs. Department of Energy, Natural Phenomena Hazard Meeting, Germantown, MD, USA, October 21st-22nd 2014.[\(PDF\)](#)
100. Boris Jeremić. High Fidelity Seismic Modeling and Simulation of Nuclear Facilities. Department of Energy, presentation to the Secretary of Energy, Washington D.C., USA, September 15th, 2014.[\(PDF\)](#)
99. Boris Jeremić. Civil and Structural Engineering Gaps in Small Modular Reactor Designs. ASME SMR 2014 Symposium, Washington, D.C. USA, April 15th-17th, 2014.[\(PDF\)](#)
98. Boris Jeremić. PRENOLIN Meeting Presentation. PRENOLIN 3rd Workshop, Nice, France, April 7th-8th, 2014.[\(PDF\)](#)
97. Boris Jeremić. INL SSI Steering Committee Meeting. Idaho Falls, Idaho, USA, January 15th-16th, 2014.[\(PDF\)](#)
96. Boris Jeremić. Earthquake Soil Structure Interaction (ESSI) Modeling and Simulation. Caltrans Seminar Series, Sacramento, California, USA, December 4th 2013. 2013.[\(PDF\)](#)
95. Boris Jeremić. PRENOLIN Meeting Presentation. PRENOLIN 2nd Workshop, Nice, France, November 4th-5th 2013. 2013.[\(PDF\)](#)
94. Boris Jeremić. ESSI Simulator Program, Current Status. Structural Mechanics in Reactor Technology (SMiRT) 22 Conference, San Francisco, California, U.S.A. August 18th - 23rd, 2013.[\(PDF\)](#)
93. Boris Jeremić. Earthquake Soil Structure Interaction for Nuclear Power Plants, Modeling and Computational Issues. CompDyn2013, 4th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Island of Kos, Greece, June 12th – 14th, 2013.[\(PDF\)](#)

92. Boris Jeremić. On Earthquake Soil Structure Interaction Modeling and Simulation. National Technical University of Athens Seminar Series, Athens, Greece, June 12th, 2013.[\(PDF\)](#)
91. Boris Jeremić. Select Aspects of Earthquake Soil Structure Interaction Modeling and Simulation. UCD GGSS Seminar Series, Davis, California, May 23rd. 2013.[\(PDF\)](#)
90. Boris Jeremić. Time Domain Nonlinear Earthquake Soil/Rock Structure Interaction Modeling and Simulation. ASCE-4 Meeting, Sand Diego, California, April 5th. 2013.[\(PDF\)](#)
89. Boris Jeremić. Challenges and Tools for Non-Linear SSI Analysis. Workshop on Analytical Methods for Seismic SSI Analysis PEER, UC Berkeley, Berkeley, California, January 9-10, 2013.[\(PDF\)](#)
88. Boris Jeremić. Nonlinear Soil Modeling for Seismic NPP Applications. Lawrence Berkeley National Laboratory, Nuclear Waste Program Seminar Series, Friday, December 14, 2012.[\(PDF\)](#)
87. Boris Jeremić. Aspects of Deterministic and Probabilistic Modeling and Simulation in Earthquake Engineering. Lawrence Berkeley National Laboratory, Earth Sciences Division Seminar Series, Friday, December 14, 2012.[\(PDF\)](#)
86. Boris Jeremić. The NRC ESSI Simulator. International Experts' Meeting on Protection against Extreme Earthquakes and Tsunamis in the Light of the Accident at the Fukushima Daiichi Nuclear Power Plant, IAEA, Vienna, Austria, September 4-7, 2012.[\(PDF\)](#)
85. Boris Jeremić. Modeling and Simulation of Earthquake Soil Structure Interaction for Risk Informed Decision Making in Nuclear Power Industry. Idaho National Laboratory, Idaho Falls, Idaho, July 16-17, 2012.[\(PDF\)](#)
84. Boris Jeremić, Nima Tafazzoli, Nebojša Orbović and Andrei Blahoianu. Amplification of Seismic Input due to 1D, 2D and 3D effects, and their Importance for NPP Structures. 21st Structural Mechanics in Reactor Technology (SMiRT) Conference, New Delhi, India, November 6-11, 2011.[\(PDF\)](#)
83. Boris Jeremić, Nima Tafazzoli, Nebojša Orbović and Andrei Blahoianu. 3D Analysis of the Influence of Varying Rock/Soil Profiles on Seismic NPP Response. 21st Structural Mechanics in Reactor Technology (SMiRT) Conference, New Delhi, India, November 6-11, 2011.[\(PDF\)](#)
82. Boris Jeremić, Annie Kammerer, Nima Tafazzoli and Babak Kamrani. The Nonlinear Time-Domain Modeling of Earthquake Soil Structure Interaction for Nuclear Power Plants: Nonlinear Contact Between Foundation and Rock. 21st Structural Mechanics in Reactor Technology (SMiRT) Conference, New Delhi, India, November 6-11, 2011.[\(PDF\)](#)
81. Boris Jeremić, Annie Kammerer, Nima Tafazzoli and Babak Kamrani. The NRC ESSI Simulator. 21st Structural Mechanics in Reactor Technology (SMiRT) Conference, New Delhi, India, November 6-11, 2011.[\(PDF\)](#)
80. Boris Jeremić, Kallol Sett. Stochastic Elastic-Plastic Finite Element Method for Performance Risk Simulations. 11th International Conference on Applications of Statistics and Probability in Civil Engineering. Zürich, Switzerland, August 1-4, 2011.[\(PDF\)](#)

79. Boris Jeremić, Panagiota Tasiopoulou, Mahdi Taiebat, Nima Tafazzoli, Mario Martinelli. Verification Procedures for Simulation of Fully Coupled Behavior of Porous Media. 11th US National Congress on Computational Mechanics, (USNCCM11), Minneapolis, Minnesota, U.S.A., July 25-28, 2011.(PDF)
78. Boris Jeremić. High Performance, High Fidelity Modeling and Simulation of Earthquake-Soil-Structure Interaction for Nuclear Power Industry Quake Summit 2011, NEES & MCEER Annual Meeting, Buffalo, NY, June 9-11, 2011.(PDF)
77. Boris Jeremić. Assessment of Seismic Input and Soil Structure Interaction for Deeply Embedded, Large Foundations. Canadian Nuclear Safety Commission (CNSC), Ottawa, Ontario, Canada, March 7th, 2011. (not for public distribution)
76. Boris Jeremić. Stochastic Elastic-Plastic Finite Element Method. Intel Corporation, Structural TCT Lecture Series (webinar), California, Arizona, Oregon (U.S.A); Malaysia; 18 October, 2010.(PDF)
75. Boris Jeremić, Nima Tafazzoli, Babak Kamrani, You-Chao Chao, Chang-Gyun Jeong, Panagiota Tasiopoulou, Kallol Sett, Annie Kammerer, Nebojša Orbović, and Andrei Blahoianu. On Seismic Soil Structure Interaction Simulations for Nuclear Power Plants. OECD – NEA – IAGE – ISSC Workshop on Soil Structure Interaction Knowledge and Effect on the Seismic Assessment of NPPs Structures and Components, Ottawa, Canada, 6-8 October 2010.(PDF)
74. Boris Jeremić. Factors of Safety for 3D vs 2D for Curved Section of the Wolf Creek Dam. Wolf Creek Dam Foundation Remediation Project. Wolf Creek Dam site, Kentucky, 19 – 21 April 2010, (not for public distribution)
73. Boris Jeremić. Simulations in Geomechanics: The Issue of Uncertainty. University of Tennessee, Department of Civil and Environmental Engineering Seminar Series, 26 March 2010.(PDF)
72. Boris Jeremić. Real-Time Monitoring for Soil-Structure Systems Under Uncertainty. Real Time Monitoring Meeting, Dubai, United Arab Emirates, 29 January - 2 February 2010. (not for public distribution)
71. Boris Jeremić. Continuum Modeling of Intact Rock. Workshop on Ground Shock in Faulted Media, McLean, Virginia, 12-15 January 2010. (not for public distribution)
70. Boris Jeremić. High Fidelity Modeling and Simulation of SFS Interaction: Energy Dissipation by Design. International Workshop on Soil-Foundation-Structure Interaction, University of Auckland, New Zealand, 26-27 November 2009.(PDF)
69. Boris Jeremić, Kallol Sett, Lev Kavvas and Suzana Koprivica. Решење еласто-пластичног проблема у простору вероватноћа и примена на практичне проблеме (Solution for the probabilistic elastic-plastic problem and its application to practical problems) UNION University, Belgrade, Serbia, 29th June, 2009.(PDF)
68. Boris Jeremić, and Kallol Sett. Stochastic Elastic-Plastic Finite Element Method, SEECM2009, 2nd South East European Conference on Computational Mechanics, Island of Rhodes, Greece, 22-24 June, 2009.(PDF)
67. Boris Jeremić, Nima Tafazzoli, Mahdi Taiebat and Guanzhou Jie. Directing Energy Dissipation in Earthquake-Soil-Structure Systems, CompDyn2009, 2nd International Conference on Computational

- Methods in Structural Dynamics and Earthquake Engineering, Island of Rhodes, Greece, 22-24 June, 2009.[\(PDF\)](#)
66. Boris Jeremić. The Case for Probabilistic Elasto–Plasticity, GheoMat: Deformation and Failure of Geomaterials, a Multidisciplinary Scientific Workshop, Masseria Salamina, Brindisi, Italy, 14-19 June 2009.[\(PDF\)](#)
 65. Boris Jeremić. Verification and Validation in Computational Geomechanics, GheoMat: Deformation and Failure of Geomaterials, a Multidisciplinary Scientific Workshop, Masseria Salamina, Brindisi, Italy, 14-19 June 2009.[\(PDF\)](#)
 64. Boris Jeremić. High Fidelity, Large Scale Modeling and Simulation, GheoMat: Deformation and Failure of Geomaterials, a Multidisciplinary Scientific Workshop, Masseria Salamina, Brindisi, Italy, 14-19 June 2009.[\(PDF\)](#)
 63. Boris Jeremić. Fully Coupled, Two Phase Behavior of Geomaterials, GheoMat: Deformation and Failure of Geomaterials, a Multidisciplinary Scientific Workshop, Masseria Salamina, Brindisi, Italy, 14-19 June 2009.[\(PDF\)](#)
 62. Boris Jeremić. Elastic–Plastic Behavior of Geomaterials: Modeling and Simulation Issues, GheoMat: Deformation and Failure of Geomaterials, a Multidisciplinary Scientific Workshop, Masseria Salamina, Brindisi, Italy, 14-19 June 2009.[\(PDF\)](#)
 61. Boris Jeremić. Earthquake–Soil–Structure Systems, 2008 Association of Pacific Rim Universities Symposium: Multi–Hazard Around the Pacific Rim, Davis, California, August 21st-22nd, 2008.[\(PDF\)](#)
 60. Boris Jeremić. On Probabilistic Yielding of (Geo–)Materials, Eight World Congress on Computational Mechanics, Venice, Italy, June 30th – July 4th, 2008.[\(PDF\)](#)
 59. Boris Jeremić. Soil Uncertainty and Seismic Ground Motion Fourth Geotechnical Earthquake Engineering and Soil Dynamics Conference, Sacramento, California, May 19-22st, 2008.[\(PDF\)](#)
 58. Boris Jeremić. On Uncertain Seismic Wave Propagation, First International Conference of the Engineering Mechanics Institute, University of Minnesota, Minneapolis, Minnesota, May 19-21st, 2008.[\(PDF\)](#)
 57. Boris Jeremić. Uncertain Elasto–Plasticity, University of Southern California Seminar Series, December 12th, 2007.[\(PDF\)](#)
 56. Boris Jeremić. On Computational Simulations and Predictions, UC Davis Geotechnical Seminar Series, November 1st, 2007.[\(PDF\)](#)
 55. Boris Jeremić. Seismic Wave Propagation in Stochastic Soils, 4ICEGE, Fourth International Conference on Earthquake and Geotechnical Engineering, Thessaloniki, Greece 25–28 June, 2007.[\(PDF\)](#)
 54. Boris Jeremić. The Plastic Domain Decomposition for Soil Foundation Structure Interaction Computations, CompDyn2007, Computational Methods in Structural Dynamics and Earthquake Engineering, Rethymno, Crete, Greece, 13–16 June, 2007.[\(PDF\)](#)

53. Boris Jeremić. Паралелна рачунарска метода прорачуна интеракције земљотреса, тла и конструкције. (Parallel Computational Method for Simulations of Earthquake, Soil and Structures), University of Belgrade, Faculty of Civil Engineering Seminar Series, Belgrade, Serbia, June 5th 2007.[\(PDF\)](#)
52. Boris Jeremić. Numerical Predictions of Soil–Foundation–Structure Interaction. Caltrans Geotechnical Services Educational Seminar Series, Sacramento, California, April 5, 2007.[\(PDF\)](#)
51. Boris Jeremić. Benefits and Detriments of Soil Foundation Structure Interaction: Simulation Platform and Examples. 4th US–Japan Workshop on SSI, Tsukuba, Japan, March 28-30 2007.[\(PDF\)](#)
50. Boris Jeremić. Benefits and Detriments of Soil–Foundation–Structure Interaction. GeoDenver 2007, Geo–Institute Annual Conference, Denver, Colorado, February 19-21, 2007.[\(PDF\)](#)
49. Boris Jeremić. Modeling and Simulations of Liquefied Soils. GeoDenver 2007, Geo–Institute Annual Conference, Denver, Colorado, February 19-21, 2007.[\(PDF\)](#)
48. Boris Jeremić. UCD CompGeoMech Contributions to OpenSees: Deliverables. PEER Annual Meeting, San Francisco, California, January 26-27 2007.[\(PDF\)](#)
47. Boris Jeremić. Piles in Liquefied Soils. PEER Annual Meeting, San Francisco, California, January 26-27 2007.[\(PDF\)](#)
46. Boris Jeremić. High Performance Computing for Fast Hybrid Simulations. CU–NEES 2006 FHT Workshop, Boulder, Colorado, Nov. 2-3 2006.[\(PDF\)](#)
45. Boris Jeremić. The Role of Material Variability and Uncertainty in Elastic-Plastic Finite Element Simulations. First South-East European Conference on Computational Mechanics (SEECCM 06), Kragujevac, Serbia, 28-30 June 2006.[\(PDF\)](#)
44. Boris Jeremić. HPC for NEES: Plastic Domain Decomposition Method. NEES Annual Meeting, Washington, District of Columbia, June 21-23, 2006.[\(PDF\)](#)
43. Boris Jeremić. Uncertain Material Parameters and the Stress–Strain Response. Second Japan-U.S. Workshop on Testing, Modeling and Simulation in Geomechanics, Kyoto, Japan, September 8-11, 2005.[\(PDF\)](#)
42. Boris Jeremić. On Uncertainty of Elasto–Plastic Simulations Universitat Politècnica de Catalunya, Barcelona, Spain, June 2005.[\(PDF\)](#)
41. Boris Jeremić. Topics in Contemporary Computational Geomechanics. A 4 day short course. Topics covered included: Large deformation Hyperelasto–Plasticity for Geomaterials, Parallel processing in computational geomechanics, Numerical simulations of coupled behavior for Geomaterials undergoing small and large deformations, Probabilistic approach to the theory of elasto–plasticity. University of Kragujevac, Kragujevac, Serbia and Montenegro, June 2005.
40. Boris Jeremić. Probabilistic Elasto–Plasticity. 25th Yugoslav Congress on Theoretical and Applied Mechanics, Novi Sad, Serbia and Montenegro, June 2005.[\(PDF\)](#)

39. Boris Jeremić. Soil–Foundation–Structure Interaction Simulations: Static and Dynamic Issues. University of California at Los Angeles Seminar Series, UCLA, May 2004.[\(PDF\)](#)
38. Boris Jeremić. A Brief Overview of the NEESgrid Simulation Platform OpenSees: Application to the Soil–Foundation–Structure Interaction Problems. Third Joint United States–Japan Workshop on Soil–Structure Interaction, Menlo Park, California, March 29–30, 2004.[\(PDF\)](#)
37. Boris Jeremić. I-880 Bridge Testbed Simulations: Soil–Foundation–Structure Interaction Issues. PEER Annual Meeting, Palm Springs, California, February 20–21, 2004.[\(PDF\)](#)
36. Boris Jeremić. Enabling Simulation and Information Technologies Solutions Schemes and Challenges for Very large Models. PEER Annual Meeting, Palm Springs, California, February 20–21, 2004.[\(PDF\)](#)
35. Boris Jeremić. Soil–Foundation–Structure Interaction Simulations and OpenSees. OpenSees Users Workshop, Richmond, California, January 2004.[\(PDF\)](#)
34. Boris Jeremić. Интеракција конструкције и тла у току земљотреса: нумеричка анализа. (Structure-soil interaction during earthquakes: numerical analysis) Грађевински Факултет Универзитета у Београду, Децембар, 2003(Civil Engineering Faculty of the University of Belgrade, December 2003).[\(PDF\)](#)
33. Boris Jeremić, COTS (Commodity off the shelf) Clusters. International Workshop on High Performance Computing in Finite Element Analysis, University of Manchester, U.K, 1st - 5th September 2003.[\(PDF\)](#)
32. Boris Jeremić, The Plastic Domain Decomposition Method in Parallel Computational Geomechanics. International Workshop on High Performance Computing in Finite Element Analysis, University of Manchester, U.K. 1st - 5th September 2003.[\(PDF\)](#)
31. Boris Jeremić. Geomechanics Simulations Using OpenSees Platform. OpenSees Users Workshop, August 2003, Richmond, California.
30. Boris Jeremić. Simulation of Local Inelastic Behavior in Large Scale Dynamics Analysis. Seventh U.S. National Congress on Computational Mechanics, July 27–31, 2003, Albuquerque, New Mexico.
29. Boris Jeremić. Soil–Structure–Interaction in Liquefied Grounds and Countermeasures: Lessons from Numerical Studies. 2003 PEER Annual Meeting, Palm Springs, California.
28. Boris Jeremić. Geomechanics Simulations Using OpenSees Platform. OpenSees Users Workshop, August 2002, Richmond, California.
27. Boris Jeremić, Recent Developments in Computational Modeling in Geomechanics, Invited Keynote Presentation. Fifth World Congress on Computational Mechanics, WCCM V, July 2002, Vienna, Austria.
26. Boris Jeremić, Computational Challenges for Seismic Design of Bridges, Invited Presentation. Scientific Computing Seminars Series, National Energy Research Scientific Computing Center, Lawrence Berkeley National Laboratory, August 2002.
25. Boris Jeremić, Earthquake Engineering Simulation Grid, Invited Presentation. Structural Engineering Seminar Series, March 2002, University of California at San Diego, La Jolla, California.

24. Boris Jeremić, Challenges in Numerically Simulating Seismic Behavior of Constructed Facilities, Invited Presentation. Bay Area Scientific Computing Day 2002, March 2002, Sandia National Laboratories, Livermore, California.
23. Boris Jeremić, Recent Developments in Computer Simulations and Visualization for Geotechnical Earthquake Engineering Problems, Invited Presentation. International Workshop on Earthquake Simulation in Geotechnical Engineering, November 2001, The George S. Dively Center, Case Western Reserve University, Cleveland, Ohio.
22. Boris Jeremić. Geotechnical applications with OpenSees OpenSees Users Workshop, August 2001, Richmond, California.
21. Boris Jeremić. Geotechnical Elements and Material Models OpenSees Developers Workshop, August 2001, Richmond, California.
20. Boris Jeremić. Large Deformation Coupled Formulation for Liquefaction Analysis Sixth U.S. National Congress On Computational Mechanics, August, 2001 Dearborn, Michigan.
19. Boris Jeremić. Dynamic Behavior of Pile Group Foundations During Strong Earthquake Events, Invited Presentation. The 2001 Joint Summer Meeting of American Society of Mechanical Engineers (ASME) American Society of Civil Engineers (ASCE) and Society of Engineering Science (SES), San Diego, July, 2001.
18. Boris Jeremić. Finite Element Methods for 3D Slope Stability Analysis. GeoDenver 2000, Geo Institute Annual Conference, Denver, Colorado, August, 2000.
17. Boris Jeremić. Modeling of Continuous Localization of Deformation. 13th ASCE Engineering Mechanics Specialty Conference, The Johns Hopkins University, Baltimore, MD, USA June, 1999.
16. Boris Jeremić. Finite Element Modeling of Failure in Geotechnical Engineering, Invited Presentation. University of California, Davis, California, April 1999.
15. Boris Jeremić. Elasto–Plasticity and the Finite Element Method: Mathematical Formulation. Presented at the Department of Mathematics and Computer Sciences Seminar Series at Clarkson University, Potsdam, New York, September 1998.
14. Boris Jeremić, Kenneth Runesson, and Stein Sture. Large deformation constitutive integration algorithm. Presented at the 12th ASCE Engineering Mechanics Conference, La Jolla, California, May 1998.
13. Boris Jeremić, Kenneth Runesson, and Stein Sture. Coaxiality of elastic and plastic strain tensors in large deformations. Presented at the Thirteen U.S. National Congress of Applied Mechanics, Gainesville, Florida, June, 1998.
12. Boris Jeremić. Finite Element Modeling of Large Deformation Elasto-plastic Problems in Geotechnics, Invited Presentation. University of California, Davis, California, April 1998.
11. Boris Jeremić. Finite Deformation Elasto-plastic Problems in Solid Mechanics of Pressure Sensitive Materials. Presented at the Department of Mechanical and Aeronautical Engineering Seminar Series at Clarkson University, Potsdam, New York, April 1998.

10. Boris Jeremić and Stein Sture. Globally convergent modification of the implicit integration schemes in soil elastoplasticity. *The 1997 Joint Summer Meeting of the American Society of Mechanical Engineers, American Society of Civil Engineers and the Society of Engineering Science*, Northwestern University, Evanston, Illinois, July, 1997.
9. Boris Jeremić, Kenneth Runesson, and Stein Sture. Invited Presentation: Elastoplastic analysis of pressure sensitive materials subjected to large deformations. Presented at the *1997 Joint Summer Meeting of the American Society of Mechanical Engineers, American Society of Civil Engineers and the Society of Engineering Science*, Northwestern University, Evanston, Illinois, July, 1997.
8. Boris Jeremić. Consistent Computations in Elasto–Plasticity of Geomaterials, Invited Presentation. University of Minnesota, Minneapolis, Minnesota, April 1997.
7. Boris Jeremić. Consistent Computations in Elasto–Plasticity of Geomaterials, Invited Presentation. Clarkson University, Potsdam, New York, April 1997.
6. Boris Jeremić. Consistent Computations in Elasto–Plasticity of Geomaterials, Invited Presentation. University of Texas, Austin, Texas, March 1997.
5. Boris Jeremić and Stein Sture. Refined solution procedures for finite element analysis in geotechnics. Presented at the CAMM seminar 96/2, Center for Acoustics, Mechanics and Materials, University of Colorado, October 1996.
4. Boris Jeremić. Object oriented numerical computations: Applications in continuum mechanics. Presented at the Geotechnical Engineering seminar series, University of Colorado at Boulder, October 1996.
3. Boris Jeremić and Stein Sture. Refined finite element analysis of geomaterials. Presented at 11th ASCE Engineering Mechanics Conference, Fort Lauderdale, Florida, May 1996.
2. Boris Jeremić, Dunja Perić, Teng-Fung Yang, Stein Sture, Hon-Yim Ko, and Y. Atsushi. The elasto plastic material model: Model description and numerical predictions. Presented at the VELACS extension project meeting at M.I.T. October, 1995.
1. Boris Jeremić and Stein Sture. Implicit integrations in geoplasticity. Presented at 10th ASCE Engineering Mechanics Conference, Boulder, Colorado, May 1995.