

## 2017 Faculty Publications

A 3D Isogeometric BE-FE Analysis with Dynamic Remeshing for the Simulation of a Deformable Particle in Shear Flows, *Computer Methods in Applied Mechanics and Engineering*. Heredia, J., Pallares, J., Scott, M. A.

A Comprehensive Python Toolkit for Accessing High-Throughput Computing to Support Large Hydrologic Modeling Tasks, *JAWRA Journal of the American Water Resources Association*. Christensen, S. D., Swain, N. R., Jones, N. L., Nelson, E. J., Snow, A. D., Dolder, H. G.

Acoustic Impact-Echo Testing and Vertical Electrical Impedance Testing for Guiding Condition Assessment of Multi-Span Concrete Bridge Decks: Application to Utah's Longest Bridge, *HDR*. Guthrie, W. S., Waters, T., Baxter, J. S., Hendrick, L., Mazzeo, B. A.

Alvenaria Estrutural, *Materiais de Construção Civil e Princípios de Ciência e Engenharia de Materiais*. Mohamad, G., Roman, H. R., Fonseca, F. S., Rizzatti, E., Romagna, R.

Analysis of masonry shear walls using strut-and-tie models, *13th Canadian Masonry Symposium*. Fonseca, F. S., Dillon, P. B.

Analysis of Safety Impacts of Access Management Alternatives Using the Surrogate Safety Assessment Model. Saito, M., Kim, K., Schultz, G. G.

Analytical Fragility Curves for Highway Bridges in Chile, *Engineering Structures*. Martinez, A., Hube, M. A., Rollins, K. M.

Application of the Roadway Safety Analysis Methodology in Utah, *Compendium of the 96th Annual Transportation Research Board*. Mineer, S. T., Schultz, G. G., Saito, M.

BYU Civil & Environmental Engineering Capstone Program, *American Society of Engineering Education (ASEE)*. Lee, W. Y., Nelson, E. J., Borup, M. B.

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Compressive Strength and Failure Mode of Axially Loaded Hollow Concrete Block Masonry, 13th Canadian Masonry Symposium. Lubeck, A., Gihad, M., Fonseca, F. S., Modler, L. E., Schmidt, R. P.

Compressive Strength of Masonry Constructed with High Strength Concrete Blocks, IBRACON Structures and Materials Journal. Fortes, E. S., Parsekian, G. A., Camacho, J. S., Fonseca, F. S.

Cyberinfrastructure and Web Apps for Managing and Disseminating the National Water Model, Journal of the American Water Resources Association. Souffront Alcantara, M., Kesler, C., Stealey, M., Nelson, E. J., Ames, D. P., Jones, N. L.

Effect of Temperature and Moisture Gradients on Roughness of Typical and Darkened Portland Cement Concrete Pavements, Transportation Research Board 96th Annual Meeting Compendium of Papers. Guthrie, W. S., Waters, T., Knighton, J. T.

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Environmental and Track Factors that Contribute to Abrasion Damage, Federal Railroad Administration. Riding, K. A., Peterman, R. J., Guthrie, W. S., Bruseke, M., Mosavi, H., Daily, K.

Featured Collection Introduction: National Flood Interoperability Experiment I, Journal of the American Water Resources Association. Nelson, E. J.

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Geotechnical Observations From the 2014 Iquique Earthquake, *Procs., 16th World Conf. on Earthquake Engineering*. Candia, G., Ledezma, C., Montalva, G., Rollins, K. M.

Hierarchically Refined and Coarsened Splines for Moving Interface Problems, with Particular Application to Phase-Field Models of Prostate Tumor Growth, *Computer Methods in Applied Mechanics and Engineering*. Lorenzo, G., Scott, M. A., Tew, K., Hughes, T. J. R., Gomez, H.

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Left-Turn Signal Warrant Procedures: A Synthesis of Practice. Schultz, G. G., Alpers, J. E., Saito, M.

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New Probabilistic Liquefaction Triggering and Lateral Spread Hazard Maps for Utah County, UDOT Spring Newsletter. Franke, K. W., Gillins, D. T., Bartlett, S. F.

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Out-of-Plane Flexural Strength of Reinforced Dry-Stack Walls, 13th Canadian Masonry Symposium. Eixenberger, J. G., Fonseca, F. S.

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Strength, Behavior, and Failure Mode of Hollow Concrete Masonry Constructed with Mortars of Different Strengths, *Construction and Building Materials*. Mohamad, G. Fonseca, F. S., Vermeltfoort, A. T., Martens, D. R. W., Lourenco, P. B.

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Typical and Darkened Portland Cement Concrete Pavement: Temperature, Moisture, and Roughness Analyses. Guthrie, W. S., Waters, T., Knighton, J. T.

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