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List of publications

18 de noviembre de 2014

## 1. Books

- Sánchez-Silva M., 2011, Introducción a la confiabilidad y evaluación de riesgos: teoría y aplicaciones en ingeniería. [*Introduction to reliability and risk analysis*] (2<sup>nd</sup> Ed.), Ediciones Uniandes, pp 457 (ISBN - 958-695-511-7)
- Sánchez-Silva M., 2005, Introducción a la confiabilidad y evaluación de riesgos: teoría y aplicaciones en ingeniería. [*Introduction to reliability and risk analysis*] (Reprinted 2007), Ediciones Uniandes, pp 467 (ISBN - 958-695-151-0)

## 2. Chapters in Books

- Sánchez-Silva M., Riascos-Ochoa J. S., 2012, Consideration of life cycle costing in seismic risk analysis. In Seismic risk analysis and management of civil infrastructure systems; Chapter 10, Part II; Ed.: S. Tesfamariam and K. Goda. Woodhead Publishing Ltd.
- Gómez C., Sánchez-Silva M., 2012, Network based models for risk assessment of transportation systems. In Seismic risk analysis and management of civil infrastructure systems; Chapter 18, Part III; Ed.: S. Tesfamariam and K. Goda. Woodhead Publishing Ltd.
- Sanchez-Silva M., 2009, Applicability of network clustering methods for risk analysis. In Soft Computing in Civil and Structural Engineering; Chapter 11; Ed.: B.H.V. Topping and Y. Tsompanakis. Saxe-Coburg Publications, Stirlingshire, Scotland.
- M.R. Hernandez-Garcia and Sánchez-Silva M., 2007, Learning Machines for Structural Damage Detection. In Intelligent computational paradigms in earthquake engineering; Chapter VIII; Ed.: N. D. Lagaros and Y. Tsompanakis Idea Group Inc. Publishers. ISBN: HC: 1-59904-099-9

- Sánchez-Silva M., 2004, Risk analysis and the decision making process in engineering. In Intelligent knowledge-based systems: business and technology in the new millennium; Chapter 7 (4); Ed.: Leondes. Krewler Press (ISBN 1-4020-7746-7)
- Sánchez-Silva M., Taylor C., Blockley D.I., 1995, (IDNDR/ODA) Evaluation of earthquake Induced failure of buildings in Buenaventura, Colombia. In Design and construction of buildings and structures to withstand earthquakes; Chapter 12; Thomas Telford, Londres, ISBN 0-7277-2067-8.

### 3. Refereed Journals

#### Under review

- Sánchez-Silva, M. Frangopol D.M., Padgett J., Soliman M. and Biondini F. 2015, Maintenance and operation of structures and infrastructure systems under uncertainty: A comprehensive overview. ASCE Journal of Structures (under Review).
- González A.D., Dueñas-Osorio L., Sánchez-Silva M., and Medaglia A. L., 2015, The Interdependent Network Design Problem for Infrastructure System Restoration. (Under review).

#### 2015

- Garzón L.X., Caicedo B., Sánchez-Silva M., Phoon K.K., 2015, Physical modeling of soil uncertainty. International Journal of Physical Modelling in Geotechnics (In Press).
- Cánovas, J. A.; Márquez-Peñaranda, J. F.; Sánchez-Silva, M.; Díez-Herrero, A.; Ruiz-Villanueva, V.; Bodoque, J.M.; Stoffel, M, 2015, Can tree tilting be used for paleoflood discharge estimations? Journal of Hydrology. (In Press).

#### 2014

- Riascos-Ochoa J., Sanchez-Silva M., Akhavan-Tabatabaei R., 2014, Reliability analysis of shock-based deterioration using phase-type distributions. Probabilistic Engineering Mechanics, 38, 88–101 (October). [DOI: 10.1016/j.probengmech.2014.09.004]
- Buritica J., Sánchez-Silva M., Tesfamariam S., 2013, A Hierarchical-based Approach to Seismic Vulnerability Assessment of Power Transmission Systems. Structures and Infrastructure [DOI: 10.1080/15732479.2014.964732].
- Gómez C., Sanchez-Silva M., Dueñas-Osorio L., 2013, An applied complex systems framework for risk-based decision-making in infrastructure engineering. Structural Safety, 50, 66-77, DOI: <http://dx.doi.org/10.1016/j.strusafe.2014.03.011>.
- Torres M.M., Sánchez-Silva M., Bastidas-Arteaga E., Schoefs F., Ozma-Cruz J.F., 2014, Non-destructive methods for measuring chloride ingress into concrete: State-of-the-art and future challenges. Construction and Building Materials. 68 (15) 68-81. DOI information: 10.1016/j.conbuildmat.2014.06.009.
- Ghosh J., Padgett J. Sánchez-Silva M., 2014, Seismic Damage Accumulation of Highway Bridges in Earthquake Prone Regions. Earthquake Spectra, doi: 10.1193/120812EQS347M, August, 2013.

- Caro S., Castillo D., Sanchez-Silva M, 2014, Methodology to Model the Uncertainty of Material Properties in Asphalt Pavements. ASCE- Journal of Materials in Civil Engineering, 26(3) 440-448.

## 2013

- Wei S., Jiang Z., Liu H., Zhou D., Sanchez-Silva M., 2013, Microbiologically induced deterioration of concrete - A Review, Sociedade Brasileira de Microbiologia; Braz. J. Microbiol. 44(4); p.1001-1007. ISSN 1517-8382 <http://dx.doi.org/10.1590/S1517-83822014005000006>. (<http://www.scielo.br/p>
- Ballesteros-Cánovas J.A., Sanchez-Silva M. Bodoque J.M. Díez-Herrero A., 2013, An integrated approach to flood risk management: the case of Navaluenga (central Spain). Water Resources management, 27(8) 3051-3069.
- Junca M. and Sánchez-Silva M., 2013, Optimal maintenance policy for permanently monitored infrastructure subjected to extreme events. Probabilistic Engineering Mechanics, 33(1), 1-8.
- Tesfamariam S., Sánchez-Silva M. and Rajeev P. , 2013, Effect of Material Properties and Topologic Irregularities on Life Cycle Cost Analysis of Reinforced Concrete Buildings. Journal of Earthquake Engineering, 17(4), 590-610.
- Garcia-Lopez N.P., Sanchez-Silva M. , Medaglia A.L., Chateauneuf A., 2013, An improved robust topology optimization approach using multiobjective evolutionary algorithms. Computers and Structures, 125, 1-10.
- Fisher, K., Virguez-Rodriguez E., Sanchez-Silva M., Faber M.H., 2013, On the assessment of marginal life saving costs for risk acceptance criteria. Structural Safety, 44, 37-46.
- Junca M. and Sánchez-Silva M., 2013, Optimal Maintenance Policy for a Compound Poisson Shock Model. IEEE Transactions on Reliability, 62(1) 66-72.
- Gómez C., Sanchez-Silva M., Dueñas-Osorio L. and Rosowsky D., 2013, Hierarchical infrastructure network representation methods for risk-based decision-making. Structures and Infrastructure Systems 9(3) 260-274.

## 2012

- Caicedo B., Ocampo M. and Sanchez-Silva M., 2012, An integrated method to optimize the infrastructure costs of public transportation systems. Structures and Infrastructure Systems 8(11), 1017-1033.
- Sanchez-Silva M., Klutke G-A and Rosowsky D., 2012, Optimization of the design of infrastructure components subject to progressive deterioration and extreme loads. Structures and Infrastructure Systems, Structure And Infrastructure Engineering 8(7), 655-667.

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- Cely M.F., Ramos-Bonilla J.P., Sánchez-Silva M., Breyse P., 2012, Personal exposures to asbestos fibers during brake maintenance of passenger vehicles in Bogotá, Colombia. *Annals of Occupational Hygiene*, 56(9), 985-999.

## 2011

- Tesfamariam S. and Sanchez-Silva M., 2011, A model for earthquake risk management based on life-cycle performance of structures. *Civil Engineering and Environmental Systems*, 28(3), 261-278.
- Gómez C., Buritica J., Sanchez-Silva M., Dueñas-Osorio L., 2011, Optimization-based decision-making for complex networks in disastrous events. *Int. J. Risk Assessment and Management*, 15(5/6), 417-436.
- Caro, S., Masad, E., Sanchez-Silva, M., and Little, D., 2011, Stochastic micro-mechanical modeling of asphalt mixtures subjected to moisture diffusion processes. *Int. J. Numer. Anal. Meth. Geomech*, 35, 1079–1097.
- Garcia-Lopez N.P., Sanchez-Silva M. , Medaglia A.L., Chateauneuf A., 2011, A hybrid topology optimization methodology combining simulated annealing and SIMP. *Computers and Structures*, 89 (2), 1512–1522.
- Sanchez-Silva M., Klutke G-A and Rosowsky D., 2011, Life-cycle performance of structures subject to multiple deterioration mechanisms, *Structural Safety*, 33 (3), 206–217.
- Ballesteros Cánovas J.A., Bodoque J.M., Díez-Herrero A. Sanchez-Silva M., Stoffel M., 2011, Calibration of floodplain roughness and estimation of palaeoflood discharge based on tree-ring evidence and hydraulic modeling. *Journal of Hydrology*, 403, 103–115.
- Bastidas E., Chateauneuf A. Sánchez-Silva M., Bressollette P. and Schoefs F., 2011, A comprehensive probabilistic model of chloride ingress in unsaturated concrete. *Engineering Structures* 33, 720-730.

## 2010

- Caro, S., E. Masad, Bhasin, A., Little, D. and Sánchez -Silva, M., 2010, Stochastic modeling of the effect of air voids on the mechanical performance of asphalt mixtures subjected to moisture diffusion. *Journal of the Association of Asphalt Paving Technologists (AAPT)*, 79, 221-252.
- Shiping Wei, Sánchez-Silva M., Trejo D., 2010, Microbial mediated deterioration of reinforced concrete structures. *International Journal of International Biodeterioration & Biodegradation*, 64, 748-754.

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- Gómez C.H., Castiblanco D.J., Sánchez-Silva M., 2010, Aproximación integral a la evaluación y manejo de riesgos sobre la infraestructura urbana [*Comprehensive approach to the assessment and management of risk in urban infrastructure*]. Revista de Ingeniería, Universidad de Los Andes. Rev.ing, 31, 84-96.
  - Bastidas E., Schoefs F., Chateauneuf A. Sánchez-Silva M., and Capra B., 2010, Probabilistic evaluation of the sustainability of maintenance strategies for RC structures exposed to chloride ingress. International Journal of Engineering Under Uncertainty: Hazards, Assessment and Mitigation, 2 (1-2), 61-74.
  - Bastidas E., Chateauneuf A. Sánchez-Silva M., Bressolette P. and Schoefs F., 2010, Influence of weather and global warming in chloride ingress into concrete: a stochastic approach. Structural Safety, 32, 238–249.

## 2009

- Bastidas E., Bressolette P., Chateauneuf A. Sánchez-Silva M., 2009, Probabilistic lifetime assessment of RC structures under coupled corrosion–fatigue deterioration processes. Structural Safety, 31, 84–96.
- Kumar R., Gardoni P., Sanchez-Silva M., 2009, Effect of cumulative seismic damage and corrosion on life-cycle cost of reinforced concrete bridges. Earthquake Engineering and Structural Dynamics 38 (7), 887 – 905.
- Sánchez-Silva M., Rosowsky D.V., Guikema S., 2009, Optimization model for design and operation of transport networks in seismic regions. ASCE – Journal of Infrastructure Systems, 15 (2), 70-79.

## 2007-2008

- Sánchez-Silva M., Rosowsky D.V., 2008, Risk, reliability and sustainability in the developing world. ICE – Structures; Special issue on Structural sustainability, 161 (4), 189-198.
- Bastidas E., Sánchez-Silva M., Chateneuf A., Ribas Silva M., 2008, Coupled reliability model of biodeterioration and chloride ingress for reinforced concrete structures. Structural Safety. 30 (2), 110-129.
- Santander C.F., Sánchez-Silva M., 2008, Design and maintenance-program optimization for large infrastructure systems. Int. J. of Structures and Infrastructure Systems, 4(4),297-309.
- Sánchez-Silva M., Rosowsky D.V., 2007, Biodeterioration of construction materials: state of the art and future challenges. J. of Materials, ASCE, 20 (5) 352-365.

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**2005-2006**

- Sánchez-Silva M., Arroyo O., Junca M., Caro S., Caicedo B., 2006, Reliability based design optimization of asphalt pavements. *Int. J. of Pavement Engineering*, 4 (6) 281-294.
- Sánchez-Silva M., Arroyo O., 2005, Comparing target spectral design acceleration values by using different acceptability criteria. *Structural safety*, 27 (2) 73-91.
- Sánchez-Silva M., Daniels M., Lleras G., Patiño D., 2005, A transport network Reliability Model for the efficient allocation of resources. *Transport research, Part B*, 39 (1), 47-63.

**Before 2004**

- Sánchez-Silva M., Rackwitz R., 2004, Implications of the High Quality Index in the design of optimum structures to withstand earthquakes. *J. of Structures, ASCE*, 130(6), 969-977
- Marek P., Gustar M., Sánchez-Silva M., 2002, Nuevos conceptos para la evaluación de la confiabilidad en el diseño estructural [*Approaches for structural reliability assessment*]. *Revista Internacional de Desastres Naturales, Accidentes e Infraestructura Civil*, 2 (2), 33-45.
- Sánchez-Silva M. Y Rackwitz R., 2002, Optimization and the life quality index as an alternative for the development of new design regulations. *Int. Journal of Structural Engineering*, 29 (1), 19-29.
- Daniels M., Sánchez-Silva M., 2002, Modelación de la confiabilidad y optimización de la inversión en infraestructura vial. *Revista de Ingeniería Universidad de los Andes* 16, 74-80.
- Espinoza J.P., Sánchez-Silva M., 2001, Revisión de los criterios de confiabilidad del código de diseño estructural como alternativa para la competitividad. *Revista de Ingeniería Universidad de los Andes* 13, 31-36.
- Lleras G., Sánchez-Silva M., 2001, Vulnerability analysis of Highway Networks, methodology and case study. *Institution of Civil Engineers ICE– Transport*, 147 (4), 223-230.
- Sánchez-Silva M., 2001, Basic concepts on risk analysis and the decision making process. *Civil and Environmental Systems in Civil Engineering*, 18, 255-277.
- Sánchez-Silva M., García L., 2001, Earthquake damage assessment using fuzzy logic and Neural networks. *Earthquake Spectra*, 17 (1), 89-112.
- Sánchez-Silva M., Yamín L.E., Caicedo B., 2000, Lessons form the 19 of January 1999 in Central Colombia. *Earthquake Spectra*, 16 (2), 493-510.

- Sánchez-Silva M., Blockley D.I., Taylor C. A., 1996, Uncertainty Modeling of Earthquake hazards. *Journal of Microcomputers in Civil Engineering*, 11 (1).

## 4. Refereed International Conferences

### 2014

- Paez-Perez D.R., Sanchez-Silva M. (2014). Modeling the principal-agent interaction in the operation of infrastructure systems. The International Symposium on Life-Cycle Civil Engineering (IALCCE2014), Nov. 16-19. Tokio, Japan.
- Gómez C.H., Sánchez-Silva M., Dueñas-Osorio L., 2014, A complexity science approach to resilience in the operation of networked infrastructure systems. World Organisation of Systems and Cybernetics (WOSC), Ibague, October 15-17.
- Díez-Herrero A., Fernández L., Bodoque J.M., Ballesteros J.A., Ruiz-Villanueva V. , Sánchez-Silva M. y García F. (2014) Análisis de riesgo de inundaciones en el plan de la actuación local de protección civil de Navalunga (Ávila). Proceedings of the XIII Reunión Nacional de Geomorfología. Cáceres, España, 9-12 Septiembre.
- Marquez F., Sanchez-Silva M., Husserl J. (2014). Biodeterioration of Portland Cement Mortar Produced by Sulfur Oxidizing Bacteria”. ASCE Pipelines Conference, August 3-6, 2014. Portland, OR.
- González, A. D., Sánchez-Silva, M., Dueñas-Osorio, L., & Medaglia, A. L. (2014). Development of mitigation strategies based on the Interdependent Network Design Problem. In *International Conference on Vulnerability and Risk Analysis and Management (ICVRAM)* (pp. 1–10). July 13-16, Liverpool, UK.
- Gonzalez A., Dueñas-Osorio L., Medaglia A., Sánchez-Silva M. (2014) Enhancing the Interdependent Network Design Problem by applying clustering based Recursive Decomposition. *Conference on Network Science - NetSci 2014*; Jun 2-6, 2014 in Berkeley California.
- Paez-Pérez D., Gómez J., Sánchez-Silva M., Bocarejo J.P. (2014) Metodología para la cuantificación económica de la vulnerabilidad de la red vial interurbana y la priorización de inversiones para la adaptación al cambio climático. Proceedings of the 18th Pan-American Conference of Traffic and Transportation Engineering and Logistics in Santander (Spain), 11 to 13 June 2014.
- Riascos-Ochoa J., Sánchez-Silva M. (2014). Phase type distributions in shock-based structural deterioration: fitting to real data and reliability estimation. 46th ESReDA Seminar on Reliability Assessment and Life Cycle Analysis of Structures and Infrastructures. May 29th - 30th, 2014, Torino, Italy
- Sánchez-Silva M. (2014). Review of degradation models and their integration in life-cycle analysis. 46th ESReDA Seminar on Reliability Assessment and Life Cycle Analysis of Structures and Infrastructures. May 29th - 30th, 2014, Torino, Italy.
- Sanchez-Silva M., Riascos-Ochoa J., Akhavan-Tabatabaei R.(2014). A review of challenges and strategies for modeling structural degradation. Structures Congress, Boston, MA., April 3-5, 2014.

- Garzón L.X., Caicedo B., Sánchez-Silva M., Phoon K.K. (2014) Physical modeling of soil uncertainty. Proceedings of the 8th International Conference on Physical Modeling in Geotechnics. Perth, Australia, January 14-17.

## 2013

- Torres M., Sanchez-Silva M., Bastidas-Arteaga E., Schoffes F. (2013). Influence of chloride content on dielectric behavior of CA. Materials science & technology. October 27-31. Montreal Quebec (oral presentation without paper).
- González, A. D., Medaglia, A. L., Dueñas-Osorio, L., Sánchez-Silva, M. & Gómez, Camilo (2013). The Interdependent Network Design Problem applied to infrastructure recovery. In Annual Meeting of the Institute for Operations Research and the Management Sciences (INFORMS). Minneapolis, USA (Oral presentation).
- Sanchez-Silva M., Riascos-Ochoa J., Akhavan-Tabatabaei R. (2013) Modeling stochastic degradation using Phase-Type distributions. Proceedings of the European Safety and Reliability conference (ESREL2013). Amsterdam, September 29-October 2.
- Gonzalez A., Medaglia A. L., Sanchez-Silva M. Dueñas-Osorio L. (2013), Resource Allocation in infrastructure networks within the context of disaster management. Proceedings of the International Conference on Structural Safety and Reliability, Columbia University, New York, USA, June 16-20.
- Sanchez-Silva M. Junca M. (2013), Optimum maintenance policies for infrastructure systems subjected to shock-based deterioration. Proceedings of the International Conference on Structural Safety and Reliability, Columbia University, New York, USA, June 16-20.
- Gomez C., Sanchez-Silva M. Dueñas-Osorio L. (2013), Evaluation of a complex distributed agent network framework for risk-based decision support in infrastructure engineering. Proceedings of the International Conference on Structural Safety and Reliability, Columbia University, New York, USA, June 16-20.
- Buritica J., Sanchez-Silva M. and Tesfamariam S., (2013), Sensitivity analysis of hierarchical decomposition for seismic vulnerability assessment of power transmission systems Conference of the ASCE Engineering Mechanics Institute, August 4 – 7, 2013. Northwestern University.
- J. F. Márquez , M. Sánchez-Silva, and J. Husserl (2013) review of reinforced concrete biodeterioration mechanisms. Proceedings of the VIII International Conference on Fracture Mechanics of Concrete and Concrete Structures FraMCoS-8 (International center for numerical methods in engineering CMNE, ), Toledo 11-14 marzo 2013, 2087-2096.
- Gómez C., Castiblanco D., Sánchez-Silva M., Dueñas-Osorio L. (2013), Study of policies for agent collaborative decision-making in risk assessment and management of infrastructure networks. Proceedings of the 2013 IEEE International Multi-Disciplinary Conference on Cognitive Methods in Situation Awareness and Decision Support (CogSIMA), February 26-28, San Diego USA..

## 2012

- Buritica J., Sanchez-Silva M., Tesfamariam S., 2012, Seismic vulnerability assessment of a BC Hydro power transmission system using complex-system based methods. 15th World Conference on Earthquake Engineering (WCEE), 24-28 September. Lisbon Portugal.



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- Gómez C., Castiblanco D., Sanchez-Silva M., Dueñas–Osorio L., 2012, Conceptual and computational insights for a holistic framework of infrastructure management. 2012 IEEE Conference on Cognitive Methods in Situation Awareness and Decision Support (CogSIMA). March 6-8, 2012 - Westin New Orleans Canal Place, New Orleans.
  - Sanchez-Silva M., Riascos-Ochoa J., 2012, Stochastic degradation models of structures subject to multiple hazards. Proc. SEI-ASCE Structures Congress 2012 - Special session: Life-Cycle Performance of Structural Systems under Multiple Hazards, March 29-31, Chicago. (Abstract accepted)
  - Sanchez-Silva M., Riascos-Ochoa J., 2012, Effect of deterioration models in the life-Cycle of infrastructure systems, Proc. Asian-Pacific Symposium on Structural Reliability and its Applications (APSSRA 2012), May 23-25, Singapore. (Paper accepted)
  - Sanchez-Silva M. Klutke G-A, 2012, Stochastic model for degrading infrastructure systems. International Symposium on Life-Cycle Civil Engineering (IALCCE 2012). Hofburg Palace, October 3 to 6, Vienna. (Abstract accepted)
  - Klutke G-A and Sanchez-Silva M., 2012, Long-term maintenance of deteriorating infrastructure: inspection strategies for incipient failures. International Symposium on Life-Cycle Civil Engineering (IALCCE 2012). Hofburg Palace from October 3 to 6, Vienna. (Abstract accepted)
  - Padgett J.E., Ghosh J., Sanchez-Silva M., 2012, Life-cycle analysis of bridges considering historic seismic damage and aging, Proc. 6th International Conference on Bridge Maintenance, Safety and Management (IABMAS 2012). July 8-12, Lake Como, Italy. (Abstract accepted)
  - Castiblanco D., Faber M., Sanchez-Silva M., 2012, Organizational issues in decision-making for temporary activities. 6th International Forum on Engineering Decisions (IFED). January 26-29, 2012, Lake Louise, Alberta, Canada.

## 2011

- Gomez C., Sanchez-Silva M., Dueñas-Osorio L., 2011, Resource allocation in infrastructure networks through clustering based optimization. The Second International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering (CSC2011). September 6-9, Chania, Crete. (Paper Accepted)
- Gómez C., Sanchez-Silva M., Dueñas-Osorio L., 2011, Clustering methods for risk assessment of infrastructure network systems. Proc. 11th International Conference on Applied Probability and Statistics, ICASP-11. August 3-7, ETH Zurich.
- Caro S., Castillo D., Sanchez-Silva M., 2011, Stochastic Modeling of the Mechanical Performance of Asphalt Mixtures. Proc. 11th U.S. National Congress on Computational Mechanics. July 25-29, Minneapolis and St. Paul, Minnesota, USA.

- Bastidas-Arteaga E., Schoefs F, Sanchez-Silva M., 2011, Probabilistic optimization of the management of corroding RC structures. Proc. ASCE 2011 Structures Congress. April 16-18, 1915-1924. Las Vegas, USA [ISBN 978-0-7844-1171-1].
- Gómez C., Buriticá J., Sanchez-Silva M., Dueñas-Osorio L., 2011, Vulnerability assessment of infrastructure networks by using hierarchical decomposition methods. Proc. International Conference on Vulnerability, Risk Analysis and Management, ICVRAM-11. April 13-15, 214-221, Maryland [ISBN: 978-0-7844-1170-4].
- Kraemer K., Virguez-Rodriguez A., Sanchez-Silva M, Faber M.H., 2011, Defining guidelines for the application of the marginal life saving costs principle for risk regulation. Proc. 11th International Conference on Applied Probability and Statistics, ICASP-11. August 3-7, 2011, ETH Zurich.

## 2010

- Cely M. F. , Ramos-Bonilla J. P. , Sánchez-Silva M., Breysse P. , Maldonado A., 2010, Personal exposure to asbestos during automotive brake replacement operations in mechanic shops in the city of Bogotá, Colombia. Book of Abstracts 8th International Scientific Conference on Health, Work and Social Responsibility: the occupational hygienist and the integration of environment, health and safety, IOHA 2010. September 28 - October 2, 159. Roma.
- Ballesteros J., Bodoque J.M., Sanchez-Silva M., Diez-Herreros A., Nieto A.B., Torp P., 2010, Implementation of new tools and data sources to manage flood risk. Proc. AWRA 2010 Spring Specialty Conference. March 29-31, Orlando, FL (USA).
- Garcia-Lopez N.P., Sanchez-Silva M., Medaglia A., Chateauneuf A., 2010, An improved hybrid topology optimization approach coupling Simulated Annealing and SIMP (SA-SIMP). Proc. 9th World Congress on Computational Mechanics and 4th Asian Pacific Congress on Computational Mechanics (IOP Conf. Ser.: Mater. Sci. Eng. 10 012183), 19-23 July Sydney, Australia.
- Tesfamariam S., Sanchez-Silva M., 2010, Fuzzy model of the life-cycle analysis of building in seismic regions. Proc. 9th US national and 10th Canadian conference on earthquake engineering: reaching beyond borders, 25-29 July 2010, Toronto, Paper ID: 1489.
- Bastidas-Arteaga E., Schoefs F., Chateauneuf A., Sánchez-Silva M., 2010, Structural reliability of RC Structures under the combined effect of chloride induced corrosion global warming and cyclic loading. Proc. 5th International ASRANet Conference. June 14-16, Edinburgh.

## 2009

- Sánchez-Silva M., Klutke G.A., Rosowsky D., 2009, Probabilistic modeling of deteriorating systems subject to extreme events. Proc. of the International Conference on Structural safety and Reliability (ICOSSAR-09); Ed.: Furuta, Frangopol and Shinozuka. September 13 -17;

1811-1818, Osaka, Japan. Francis Taylor.

- Sánchez-Silva M., Castro R., Rosowsky D., 2009, Systems modeling of large transportation networks exposed to multiple hazards. Proc. International Conference on Structural safety and Reliability (ICOSSAR-09); Ed.: Furuta, Frangopol and Shinozuka. Osaka, Japan. September 13 -17, 2812-2819. Francis Taylor.
- Bastidas Arteaga E., Sánchez-Silva M., Chateauneuf A., Bressolette Ph., Schoefs F., 2009, Stochastic assessment of chloride ingress into concrete matrix. Proc. of the International Conference on Structural safety and Reliability (ICOSSAR-09); Eds Furuta, Frangopol and Shinozuka. September 13 -17; 3247-3254, Osaka, Japan. Francis Taylor.
- Rokneddin K., Sánchez-Silva M. and Dueñas-Osorio L., 2009, Reduced computational complexity for the reliability assessment of typical infrastructure topologies. Proc. Lifeline Earthquake Engineering in a Multihazard Environment (TCLEE). June 28—July 1, Oakland, California.
- Bastidas-Arteaga E., Schoefs F., Chateauneuf A., Sánchez-Silva M. and Capra B., 2009, Probabilistic evaluation of the sustainability of maintenance strategies for RC structures exposed to chloride ingress. IFED, Fourth forum on Long-term Policy Making for a Sustainable Society. May 13-16, Sebgokuhara, Hakone, Kanagawa, Japan.

## 2007-2008

- Bastidas-Arteaga E., Sánchez-Silva M., Bressolette Ph., Chateauneuf A. and Raphael W., 2008, Assessment of the coupled effect of corrosion-fatigue on the reliability of RC bridges. IABMAS 2008: Proc. 4th International Conference on Bridge Maintenance, Safety and Management. July 13-17, Seoul, Korea.
- Gardoni P, Kumar R., Sanchez-Silva M., 2008, Effect of cumulative seismic damage and corrosion on life-cycle cost of reinforced concrete bridges. Proc. First International Symposium on Life-Cycle Civil Engineering (IALCCE'08). June 11-14, Varenna, Lake Como, Italy.
- Bastidas E., Sánchez-Silva M., Chateneuf A., 2007, Structural reliability of RC structures subject to biodeterioration, corrosion and concrete cracking. Proc. ICASP10, July 31-August 3, Tokyo Japan.
- Bastidas-Arteaga E., Philippe Bressolette P., Chatauneuf A et Sanchez-Silva M., 2007, Approches probabilistes et fiabilistes appliquées à la durée de vie des structures. Proc. 25èmes Rencontres Annuelles de l'AUGC. May 23-25, Bordeaux, France.

## 2005-2006

- Micka M., Gustar M., Marek P. and Sánchez-Silva M., 2006, Comments on the Application of SBRA method considering use of FEM and corresponding computer programs. Proc. of IABSE 2006; Symposium in Budapest on the subject of “Simulation-Based Reliability Assessment of structures. September 13-15, Budapest.
- Prozzi J. A., Sánchez Silva M., Caro S., 2005, Uso de Ensayos acelerados para predecir el comportamiento real de carreteras”. Memorias XIII Congreso Ibero-Latinoamericano del Asfalto. November 20-25, San José, Costa Rica.
- Hernández M.R. Sánchez-Silva M. and Caicedo B., 2005, Estimation of the mechanical properties of existing multi-layer pavement structures. Proc. International Conference on Structural safety and reliability, ICOSSAR-2005. Ed.: Augusti, G., G.I. Schueller, and M. Ciampoli. June 19-23; 1769-1776, Roma. Millpress, Rotterdam [ISBN 90 5966 040 4].

#### 2003-2004

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