

LIST OF PAPERS

a) Papers considered by the candidate to be the most relevant (10 papers)

01 - Zaharia R., Pintea D., Dubina D. (2007) "Fire analysis and design of a composite steel-concrete structure", Steel and Composite Structures, Editors: Wang Y.C., Choi C.K., Taylor & Francis Group, London, U.K., ISBN 978-0-415-45141-3

02 - Zaharia R., Dubina D. (2012) "Case study: Fire design validation". Integrated Fire Engineering and Response – Case Studies, Edited by Wald F., Burgess I., Rein G., Kwasniewski L., Vila Real P., Horova K., COST Office, CTU Publishing Production, Prague, Czech Republic, ISBN-978-80-01-05004-0

03 - Zaharia R., Gernay Th. (2012). "Validation of the advanced calculation model SAFIR through DIN EN 1991-1-2 procedure". International Conference on Advances on Steel Concrete Composite and Hybrid Structures - ASCCS 2012, July 2-4, Singapore, Edited by J. Y. Richard Liew and Siew Chin Lee, ISBN-13: 978-981-07-2615-7, ISBN-10: 981-07-2615-5

04 - Zaharia R., C. Vulcu, O. Vassart, T. Gernay, Franssen J.M. (2013). "Numeric analysis of partially fire protected composite slabs". Steel and Composite Structures. 14(1). ISSN 1229-9367

05 - Zaharia R., Franssen J.M. (2012). "Simple equations for the calculation of the temperature within the cross-section of slim floor beams under ISO fire". Steel and Composite Structures. 13(2). ISSN 1229-9367.

06 - Zaharia R., Vassart O. (2012). "Fire analysis of slim floor systems using Cofradal floor units". International Conference on Advances on Steel Concrete Composite and Hybrid Structures - ASCCS 2012, July 2-4, Singapore, Edited by J. Y. Richard Liew and Siew Chin Lee, ISBN-13: 978-981-07-2615-7, ISBN-10: 981-07-2615-5.

07 - Zaharia R., Franssen J.M. (2002) "Fire design study case of a high-rise steel storage building". Stability and Ductility of Steel Structures - SDSS 2002, Editor: Ivanyi M., Akademiai Kiado, Budapest, Hungary, ISBN 963-05-7950-2

08 - Faggiano B., Esposto M., **Zaharia R.,** Pintea D. (2008) "Risk management in case of fire after earthquake – Structural analysis and design in case of fire after earthquake". Urban Habitat Constructions under catastrophic Events, Editors: Mazzolani F., Mistakidis E., Borg R.P., Byfield M., De Matteis G., Dubina D., Indirli M., Mandara A., MUseau J.P., Wald F., Wang Y., Malta University Publishing, Malta, ISBN 978-9909-44-40-2

09 - Zaharia R., D. Pintea (2009). "Fire after earthquake analysis of steel moment resisting frames". International Journal of Steel Structures (INT J STEEL STRUCT). 9(4). ISSN 1598-2351

10 - Zaharia R., Taucer F., Pinto A., Molina J., Vidal V., Coelho E., Candeias P. (2006) "Pseudodynamic earthquake test on a full-scale RC flat-slab building structure". European Commission, Joint Research Centre - Institute for the Protection and Security of the Citizen, European Laboratory for Structural Assessment – ELSA, Publication No EUR 22192EN, European Communities, Printed in Italy

b) PhD Thesis

Safety of cold-formed steel structures. Ph.D. degree in Civil Engineering defended at The "Politehnica" University of Timișoara, confirmed by The Ministry of National Education, Order no. 3337, dated 8.03.2000.

c) Books

Franssen J. M., Zaharia R. (2006) "Design of steel structures subjected to fire – Background and design guide to Eurocode 3", Editions de l'Universite de Liege, Liege, Belgium, ISBN 978-287-456-0279

Franssen, J. M., Kodur, V., Zaharia, R. (2009), "Designing steel structures for fire safety", CRC Press, Taylor & Francis Group, London, UK, ISBN 978-0-415-54828-1

Mircea Georgescu, Raul Zaharia (1999) "Introducere in tehnica proiectarii asistate de experiment a constructiilor metalice" Orizonturi Universitare, Timisoara 973-9400-82-5

Dan Dubina, Viorel Ungureanu, Raul Zaharia, Zsolt Nagy (2004) "Calculul și proiectarea construcțiilor din profile metalice cu pereți subțiri formate la rece" Editura AMM, Bucuresti 973-86509-4-1

Zaharia R. (2005) "Analiza experimentală și numerică a fermelor din profile metalice formate la rece" Orizonturi Universitare, Timisoara, ISBN 973-638-243-5

Franssen J. M., Zaharia R. (2008) "Calculul construcțiilor metalice la acțiunea focului" Orizonturi Universitare, Timisoara ISBN 978-973-638-360-1

Raul Zaharia, Dan Dubina, Dan Pinteau, Sorin Dan, Diana Duma, Olivier Vassart, Bin Zhao (2011) "Evaluarea rezistenței la foc a planșelor compuse protejate parțial" Orizonturi Universitare, Timisoara 978-973-638-482-0

Zaharia Raul, Both Ioan (2013) "Structural Analysis - Applications for Statically Indeterminate Structures" Orizonturi Universitare, Timisoara 978-973-638-536-0

d) Articles published in journals from main international scientific flux (ISI journals)

Zaharia R., C. Vulcu, O. Vassart, T. Gernay, Franssen J.M. (2013). "Numeric analysis of partially fire protected composite slabs". *Steel and Composite Structures*. 14(1). ISSN 1229-9367

Zaharia R., Franssen J.M. (2012). "Simple equations for the calculation of the temperature within the cross-section of slim floor beams under ISO fire". *Steel and Composite Structures* 13(2). ISSN 1229-9367.

Zaharia R., Pinteau D. (2009). "Fire after earthquake analysis of steel moment resisting frames". *International Journal of Steel Structures*. 9(4). ISSN 1598-2351

Zaharia R., Dubina D. (2006). "Stiffness of joints in bolted connected cold-formed steel trusses". *Journal of Constructional Steel Research (J CONSTR STEEL RES)*. 62(3). ISSN 0143-974X.

Dubina D., Goina D., Georgescu M., Ungureanu V., Zaharia R. (1998). "Recent research on stability analysis of thin-walled cold-formed steel members". *Journal Of Constructional Steel Research*. 46(1-3). ISSN 0143-974X

Dubina D., Zaharia R., Georgescu M., Dinu F., Olar Gh., Nagy Z. (1998). "Some particular problems regarding the use of light steel single-storey industrial structures in Romania". *Journal Of Constructional Steel Research*. 46(1-3). ISSN 0143-974X.

Dubina D., Zaharia R. (1997). "Cold-formed steel trusses with semi-rigid joints". *Thin Walled Structures*. 29(1-4) ISSN 0263-8231.

e) Articles published in international conferences

D. Dubina, R. Zaharia, D. Sorin, The influence of node semi-rigidity on the behaviour of cold-formed steel members plane trusses, Annual Technical Session of the Structural Stability Research Council, Published by Structural Stability Research Council, USA, p. 103, 1995, ISBN 1-879749-60-2

D. Dubina, D. Grecea, R. Zaharia Evaluation on static and dynamic structural coefficient of steel frames with semi-rigid joints via numerical simulations, "Connections in Steel Structures - Behaviour, Strength and design ", Pergamon, p. 349, ISBN 0-08-042821-5, 1995

D. Dubina, D. Grecea, R. Zaharia Moment- rotation models and numerical simulations of static and dynamic behaviour of steel frames with semi-rigid joints, *Steel Structures - EUROSTEEL 95*, May 1995, Athens, Greece, Edited by A. N. Kounadis, Balkema Publishers, ISBN 90-5410-554-2, p. 127, 1995

D. Dubina, D. Grecea, R. Zaharia, Simplified computation model for semi-rigid joints steel frames analysis *Stability of Steel Structures*" September 21-23, 1995 Edited by Miklos Ivanyi, Akademiai Kiado, Budapest, Vol. I, p. 423, ISBN 96305-6967-1, 1995

D. Dubina, D. Grecea, R. Zaharia Numerical analysis of steel frames with semi-rigid joints, "IXth International Conference - Metal Structures" June 26-30, 1995, Kracow, Poland, Vol I p. 315, 1995

D. Dubina, M. Georgescu, R. Zaharia Lightweight single-layer steel structures for atrium and financial street of financial center in Timisoara, "International Conference on Lightweight structures in civil engineering" September 25-29, 1995, Warsaw, Poland, 1995

D. Dubina, R. Zaharia, S. Dan, F. Dinu, The semi-rigid character of the thin-walled steel trusses with bolted connections, *European Workshop on Thin-Walled Steel Structures*, Krzywowa-Kreisau, Poland, September 1996, Edited by Kazimierz Rykaluk and Hartmut Pasternak, ISBN 83-7076-080-5, p. 229, 1996

D. Dubina, R. Zaharia, Behaviour of bolted connections in cold-formed steel plane trusses, "Semi rigid behaviour of civil engineering structural connections" COST C1 WG2/WG4 Meeting, Aachen, Germany, April 1-2, 1996

D. Dubina, R. Zaharia, The influence of node semi-rigidity of the thin-walled steel trusses bolted joints *Advances in Steel Structures ICASS'96 - Hong Kong*, 1996, Edited by S. L. Chan and J. G. Teng, ISBN 0-08-042830-4, Vol. I p. 353-358

D. Dubina, R. Zaharia Cold-formed steel trusses with semi-rigid joints "Semi rigid behaviour of civil engineering structural connections " COST C1, WG1 Meeting, Clermont Ferrand, France, November 7-9, 1996

D. Dubina, R. Zaharia, F. Dinu, M. Georgescu Stress skin design of single storey building in seismic areas *Behaviour of Steel Structures in Seismic Areas - STESSA '97*, 4-7 August 1997, Kyoto, Japan; Edited by F. Mazzolani and H. Akiyama, Edizioni 10/17 - Salerno, p. 426, ISBN 88-85651-76-3, 1997

D. Dubina, R. Zaharia, D. Goina, V. Ungureanu, Numerical modelling of instability phenomenon of thin-walled steel members, Vth International Colloquium on Stability and Ductility of Steel Structures, Japanese Session, 29-31 July, 1997, SDSS '97, Nagoya, Japan, Vol. II, p. 755, 1997

R. Zaharia, D. Dubina Finite element modelling of thin-walled steel bolted joint VIth Scientific Conference of Civil Engineering Faculty of Technical University of Kosice, May 1997, Kosice, Slovak Republic, 1997

R. Zaharia, Numerical analysis of cold-formed steel trusses with semi-rigid joints, VIth Scientific Conference of Civil Engineering Faculty of Technical University of Kosice, May 1997, Kosice, Slovak Republic, 1997

D. Dubina, R. Zaharia, D. Goina, V. Ungureanu, Finite element simulation of instability behaviour of thin-walled steel members, Experimentation et Calcul en Genie Civil – EC'97 AUCG, Strasbourg, France, 22-23 Mai 1997, vol II, p. 523, ISBN 2-9509268-3-5, 1997

D. Dubina, F. Dinu, R. Zaharia, M. Georgescu, Seismic response of light steel industrial building, VIIIth Symposium on Stability of Structures, 22-26 September, 1997, Zakopane, Poland

D. Dubina, R. Zaharia, Experimental evidence of semi-rigid behaviour of some cold-formed steel truss bolted joints, International Conference on Experimental Model Research and Testing of Thin-Walled Steel Structures, 22-24 September, 1997, Prague, Czech Republic, p 327, 1997

D. Dubina, R. Zaharia, D. Goina, V. Ungureanu, Experimental calibration of numerical models for coupling instabilities of thin-walled steel members, International Conference on Experimental Model Research and Testing of Thin-Walled Steel Structures, 22-24 September, 1997, Prague, Czech Republic, p 345, 1997

D. Dubina, L. Fulop, R. Zaharia, Optimisation of bracing systems of steel framed houses, Second European Conference on Steel Structures, May 26-29, Prague, Czech Republic, p 328, ISBN 8001019632, 1999

R. Zaharia, D. Dubina, Behaviour of cold-formed steel truss bolted joints, The IVth International Workshop on Connections in Steel Structures "Steel Connections in the new Millennium", Roanoke, USA, 22-25 October, 2000

D. Dubina, V. Ungureanu, R. Zaharia, I. Caraba, Design assisted by testing of a large roof double layered reticulated steel structure, Third European Conference on Steel Structures, EUROSTEEL 2002, 19-20 September, 2002, Coimbra, Portugal, Ed. Associacao Portuguesa de Construcao Metalica e Mista, p. 61 ISBN 972-98376-3-5, 2002

D. Dubina, R. Zaharia, V. Ungureanu, Behaviour of built-up columns made of C sections connected with bolted C stitches, International Colloquium Stability and Ductility of Steel Structures, SDSS'2002, 26-28 September, 2002, Budapest, Hungary, Akademiai Kiado, p. 179, ISBN 963-05-7950-2

R. Zaharia, J. M. Franssen, Fire design study case of a high - rise steel storage building, International Colloquium Stability and Ductility of Steel Structures, SDSS'2002, 26-28 September, 2002, Budapest, Hungary, Akademiai Kiado, p. 745, ISBN 963-05-7950-2

E. Coelho, P. Candeias, G. Anamateros, A. V. Pinto, F. Taucer, R. Zaharia, Comportamento Sísmico Experimental de Edifícios de Betão Armado com Lajes Fungiformes, Sismica 2004 - 6^o Congresso de Sismologia e Engenharia Sísmica, UM, Guimarães, Portugal 14-16 de Abril, 2004

E. Coelho, P. Candeias, G. Anamateros, R. Zaharia, F. Taucer, A.V. Pinto, Assessment of the seismic behaviour of RC flat slab building structures, 13th World Conference on Earthquake Engineering, Paper no. 2630, Vancouver, Canada, August 1-6, 2004

D. Dubina, D. Grecea, R. Zaharia, Numerical simulation of the behaviour of steel frames with semi-rigid connections under static and seismic loads, "Behaviour of steel structures in seismic areas - STESSA'94 - Timisoara" E&FN SPON An Imprint of Chapman and Hall 1994, London, p. 580, ISBN 0-419-19890-3, 1994

D. Dubina, M. Georgescu, R. Zaharia, O. Tripa, Spherical dome solution to covering an archaeological site, VII-th International Conference on Steel Structures Timisoara 29-30 September 1994, Vol. II p. 413, 1994

M. Ivan, R. Zaharia, Comparison aspects between EUROCODE 3 and the Romanian code for steel structures - STAS 10108/78, VII-th International Conference on Steel Structures Timisoara 29-30 September 1994, Vol. I p. 77, 1994

D. Dubina, M. Georgescu, R. Zaharia, Lightweight pyramidal solution for atrium of Financial Center of Timisoara, VII-th International Conference on Steel Structures Timisoara 29-30 September 1994, Vol. II p. 408, 1994

D. Dubina, D. Grecea, R. Zaharia, Numerical models of beam-to-column joints for the design of steel building frames, "IIIrd International Conference on Boundary and Finite Element ELFIN 3" May 25-27, 1995, Constanta, Romania. Section 4, p. 19-28

D. Dubina, D. Grecea, R. Zaharia, Steel frame analysis via EUROCODE 3 criteria "IIIrd International Conference on Boundary and Finite Element ELFIN 3" May 25-27, 1995, Constanta, Romania. Section 2.2 p. 71, 1995

S. Baraka, R. Zaharia Geometrical and resistance characteristics of a sigma cold-formed section "Seminar on EUROCODE 3- Part 1.3: Cold Formed Gauge Members and Sheetings" July 1995, Timisoara, Romania, Klitdaritmos C. Books, p. 174, ISBN 960-332-038-2, 1995

S. Baraka, R. Zaharia, Design of purlins with and without sheeting restraining, "Seminar on EUROCODE 3- Part 1.3: Cold Formed Gauge Members and Sheetings" July 1995, Timisoara, Romania, Klitdaritmos C. Books, p. 186, ISBN 960-332-038-2, 1995

S. Baraka, R. Zaharia, Design of roof sheeting, "Seminar on EUROCODE 3- Part 1.3: Cold Formed Gauge Members and Sheetings" July 1995, Timisoara, Romania, Klitdaritmos C. Books, p. 224, ISBN 960-332-038-2, 1995

D. Dubina, R. Zaharia, D. Grecea, F. Dinu, Why semi-rigid connections in steel structures VIIIth International Conference on Steel Structures - Timisoara, September 1997, p. 475, ISBN 973-578-350-9, 1997

D. Dubina, M. Georgescu, R. Zaharia, D. Grecea, Some particular problems regarding the use of light single storey building in Romania VIIIth International Conference on Steel Structures - Timisoara, September 1997, p. 495, ISBN 973-578-350-9, 1997

D. Dubina, D. Goina, M. Georgescu, V. Ungureanu, R. Zaharia, Recent advances in stability analysis of thin-walled cold-formed steel members, VIIIth International Conference on Steel Structures - Timisoara, September 1997, p. 254, ISBN 973-578-350-9, 1997

R. Zaharia, D. Dubina, Finite element analysis of bolted connections of thin-walled steel trusses, IVth International Conference on Boundary and Finite Elements, 4-6 June, 1997, p. 41, Iasi, Romania

R. Zaharia, Global and member analysis of thin-walled steel truss frames with semi-rigid joints, IVth International Conference on Boundary and Finite Elements, 4-6 June, 1997, p. 158, Iasi, Romania

D. Dubina, R. Zaharia, D. Goina, V. Ungureanu, Recent advances in numerical modelling of instability phenomenon of thin-walled steel members, IVth International Conference on Boundary and Finite Elements, 4-6 June, 1997, p.53, Iasi, Romania

D. Dubina, L. Fulop, R. Zaharia, Floor and wall bracing systems for steel framed houses, VIth International Conference "Stability and Ductility of Steel Structures", SDSS'99, 9-11 September 1999, Timisoara, Elsevier Science Ltd., p. 485

R. Zaharia, Experimental study on the behaviour of bolted joints in cold-formed steel trusses, IXth International Conference on Metal Structures, Timisoara, 2000, Ed. Orizonturi Universitare, ISBN 973-8109-17-5

R. Zaharia Evaluation of experimental results on single lap bolt joints using annex Z of EUROCODE 3 IXth International Conference on Metal Structures, Timisoara, 2000, Ed. Orizonturi Universitare, ISBN 973-8109-17-5

D. Dubina, A. Stratan, R. Zaharia, Utilisation des poteaux mixtes en Roumanie et calcul a l'incendie, Colocviul franco-roman "Ingénierie, Normalisation et Recherche en Construction Mixte Acier-Béton, 14-15 Septembre, Timisoara, Ed. Orizonturi Univ., p. 149, ISBN 973-638-058-0, 2001

R. Zaharia, D. Dubina, A. Stratan Fire design of a reinforced concrete filled CHS column Xth International Conference on Metal Structures, ICMS 2003, 16-17 October, Timisoara, Ed. Orizonturi Univ., p. 92, ISBN 973-638-060-2, 2003

R. Zaharia, D. Dubina, V. Ungureanu, Finite element model for built-up columns made of cold-formed steel C sections, Xth International Conference on Metal Structures, ICMS 2003, 16-17 October, Timisoara, Ed. Orizonturi Univ., p. 156, ISBN 973-638-060-2, 2003

Zaharia R., D. Pintea, D. Dubina Fire analysis and design of a composite steel-concrete structure "Steel and Composite structures" ICSCS07, 30.07-1.08. 2007, Manchester, UK, Taylor & Francis/ Balkema, ISBN978-0-415-45141-3, 2007

D. Pintea, Zaharia R. Fire design of composite steel-concrete columns under natural fire COST C26 Workshop "Urban habitat constructions under catastrophic events" Prague, 30-31.03.2007 ISBN 978-80-01-03583-2, 2007

D. Dubina, F. Dinu, V. Ungureanu, Zaharia R., D. Grecea High strength steel for seismic resistant building frames COST C26 Workshop "Urban habitat constructions under catastrophic events" Prague, 30-31.03.2007 ISBN 978-80-01-03583-2, 2007

Dubina, D., Muntean, N., Stratan A., Grecea, D., Zaharia R., Testing program to evaluate behaviour of dual steel connections under monotonic and cyclic loading EUROSTEEL 2008, Graz, Austria 3-5.09.2008, ISBN 92-0147-000-90, 2008

Zaharia R., Pintea D, Dubina D Fire after earthquake, a natural fire approach EUROSTEEL 2008, Graz, Austria 3-5.09.2008, ISBN 92-0147-000-90, 2008

Pintea D, Zaharia R., Stratan A, Dubina D Fire after earthquake STRUCTURES IN FIRE 2008, Singapore 28-30.05.2008, ISBN978-981-08-0767-2, 2008

Zaharia R., Dubina D, Pintea D. Application of advanced calculation models for fire design in Romania STRUCTURES IN FIRE 2008, Singapore 28-30.05.2008, ISBN978-981-08-0767-2, 2008

Pintea D, Zaharia R., Kaliske M, Kaklauskas G, Bacinkas D, Gribniak V, Torok A, Hajpal M Mechanical properties of materials, Urban Habitat Constructions under Catastrophic Events, Malta 23-25.10.2008, ISBN 978-99909-44-40-2, 2008

Pintea D, Zaharia R., Kaliske M, Kaklauskas G, Bacinkas D, Gribniak V, Torok A, Hajpal M, Thermal properties of materials, Urban Habitat Constructions under Catastrophic Events, Malta 23-25.10.2008, ISBN 978-99909-44-40-2, 2008

Faggiano B, Esposito M, Zaharia R., Pintea D, Risk management in case of fire after earthquake, Urban Habitat Constructions under Catastrophic Events, Malta 23-25.10.2008, ISBN 978-99909-44-40-2, 2008

Faggiano B, Esposito M, Zaharia R., Pintea D Structural analysis and design in case of fire after earthquake, Urban Habitat Constructions under Catastrophic Events, Malta 23-25.10.2008, ISBN 978-99909-44-40-2, 2008

Zaharia R., D. Pintea, D. Dubina Fire analysis of structures in seismic areas Application of structural fire engineering, Prague 19-20.02.2009 ISBN 978-80-01-04266-3, 2009

C. Vulcu, Th. Gernay, Zaharia R., JM Franssen Numerical modelling of membrane action of composite slabs in fire situation Sixth International Conference "Structures in Fire", East Lansing, Michigan, USA 2-4.06.2010, ISBN 978-1-60595-027-3, 2010

E. Nigro, G. Cefarelli, F. Wald, M. Hajpal, Zaharia R., N. Lopes, P. Vila Real, L. Kwasniewski, Z. Dubrowicz, D. Panthousa, E. Geda, D. Bacinkas, V. Gribniak, M. Heinisuo Evaluation of vulnerability of constructions, Urban Habitat Constructions under Catastrophic Events, Naples, Italia, 16-17.09.2010, ISBN 978-0-415-60686-8, 2010

D. Bacinkas, E. Geda, V. Gribniak, G. Kaklauskas, G. Cefarelli, B. Faggiano, A. Ferraro, FM Mazzolani, E. Nigro, C. Couto, N. Lopes, P. Villa Real, M. Hajpal, A. Torok, M. Kaliske, L. Kwasniewski, D. Pintea, Zaharia R., Analyses of structures under fire, Urban Habitat Constructions under Catastrophic Events, Naples, Italia, 16-17.09.2010, ISBN 978-0-415-60686-8, 2010

Zaharia R., Duma D., Vassart O., Gernay T., Franssen J. M., Simplified fire design for slim floor beams 6th European Conference on Steel and Composite Structures, Budapest, Hungary - EUROSTEEL 2011, 31.08-2.09.2011 ISBN 978-92-9147-103-4, 2011

Pintea D., Zaharia R. Algorithm and program for the temperature analysis in a fire compartment Recent researches in Artificial Intelligence, Knowledge Engineering and Data Bases - 10th International Conference on Artificial Intelligence AIKED'11, Cambridge, 20-22.02.2011, ISBN 978-960-477-273-8, 2011

Zaharia R., Duma D., Vassart O., Gernay T., Franssen J. M. Simplified method for temperature distribution in slim floor beams Application of structural fire engineering, Prague 29.04.2011, ISBN 978-80-01-04798-9, 2011

Zaharia R., Gernay Th., Validation of the advanced calculation model SAFIR through DIN EN 1991-1-2 procedure, International Conference on Advances on Steel Concrete Composite and Hybrid Structures - ASCCS 2012, July 2-4, Singapore ISBN 978-981-07-2615-7, 2012

Zaharia R., Vassart O., Fire analysis of slim floor systems using Cofradal floor units, International Conference on Advances on Steel Concrete Composite and Hybrid Structures - ASCCS 2012, July 2-4, Singapore ISBN 978-981-07-2615-7, 2012