



**Professor Robert Tremblay**

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Department of Civil, Geological and Mining Engineering

Polytechnique Montréal, Canada

Canada Research Chair in Earthquake Resistant Design and Construction of Building Structures

### Research Interests:

Seismic design, dynamic analysis and stability of structures. Steel, concrete and steel-concrete structures. Building and bridge structures. Cold formed steel members.

### Education:

B.Sc.A and M.Sc., Laval University

Ph.D., University of British Columbia

### Selected Publications (Over 300 papers, among them the following):

R. Tremblay, M.H. Archambault, A. Filiatrault (2003). Seismic Response of Concentrically Braced Steel Frames Made With Rectangular Hollow Bracing Members. *Journal of Structural Engineering*, 129(12), p. 1626-1636.

R. Tremblay, S. Merzouq (2004). Dual buckling restrained braced steel frames for enhanced seismic response. *Proceedings Passive control symposium 2004*, p. 89-104.

R. Tremblay, L. Poncet, P. Bolduc, R. Neville, R. DeVall (2004). Testing and design of buckling restrained braces for canadian application. 13th world conference on earthquake engineering, Canadian association for earthquake engineering (CAEE).

R. Tremblay, S. Merzouq (2005). Assessment of seismic design forces in dual buckling restrained braced steel frames. 1st International Workshop on advances in steel constructions, p. 739-746.

M. Haddad, R. Tremblay (2006). Influence of connection design on the inelastic seismic response of HSS steel bracing members. *Tubular Structures: Welding in the World*, 50(SPEC ISS), p. 574-581.

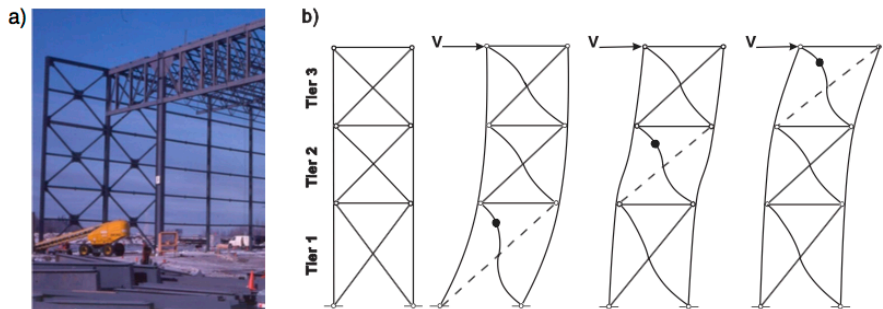


Figure 1. a) Tall single-storey steel building with 3-tiered CBFs along the height; b) Concentration of inelastic demand in a 3-tiered CBF.

From: Ali Imanpour, Christopher Stoakes, Robert Tremblay, Larry Fahnestock and Ali Davaran, "Seismic stability response of columns in multi-tiered braced steel frames for industrial applications", ASCE Structures Congress, 2013

R. Tremblay, L. Poncet (2007). Improving the seismic stability of concentrically braced steel frames. *Engineering Journal*, 44(2), p. 103-116.

R. Tremblay, C. Rogers, C.-P. Lamarche, C. Nedisan, J. Franquet, R. Masarelli, K. Shrestha (2008). Dynamic seismic testing of large size steel deck diaphragm low-rise building applications. 14th World Conference on Earthquake Engineering (WCEE), p. 05-05-0066.

S. Koboëvic, A. Le Bec, R. Tremblay (2010). Seismic behavior of reinforced concrete ductile shear walls on rocking foundations. 14th European Conference on Earthquake Engineering.

R. Tremblay (2011). Evolution of the Canadian seismic design provisions for steel structures since 1989. Annual Conference of the Canadian Society for Civil Engineering 2011, CSCE 2011, v. 2, p. 941-956.

R. Massarelli, J.E. Franquet, K. Shrestha, R. Tremblay, C.A. Rogers (2012). Seismic Testing and Retrofit of Steel Deck Roof Diaphragms for Building Structures. *Thin-Walled Structures*, 61, p. 239-247.

Ali Imanpour, Christopher Stoakes, Robert Tremblay, Larry Fahnestock and Ali Davaran, "Seismic stability response of columns in multi-tiered braced steel frames for industrial applications", ASCE Structures Congress, 2013

A. Davaran, A. Gelinias, R. Tremblay (2015). Inelastic buckling analysis of steel X-bracing with bolted single shear lap connections. *Journal of Structural Engineering*, 141(8),

N. Hoveidae, R. Tremblay, B. Rafezy and A. Davaran, "Numerical investigation of seismic behavior of short-core all-steel buckling restrained braces", *Journal of Constructional Steel Research*, Vol. 114, pp 89-99, November 2015

Lucia Tirca, Liang Chen and Robert Tremblay, "Assessing collapse safety of CBF buildings subjected to crustal and subduction earthquakes", *Journal of Constructional Steel Research*, Vol. 115, pp 47-61, December 2015

R. Tremblay, M. Dehghani, L. Fahnestock, R. Herrera, M. Canales, C. Clifton, Z. Hamid (2016). Comparison of seismic design provisions for buckling restrained braced frames in Canada, United States, Chile, and New Zealand. *Structures*, 8, p. 183-196.