



Fig. 4. Brace with end gusset plate model: a) HSS brace simulation, b) discretization technique applied to HSS brace cross-section; and c) gusset plate connection detail.

## Professor Lucia Tirca

From: 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

See:

<https://www.concordia.ca/encs/bcee/about/faculty.html>

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### Research Interests:

Structural Engineering, Design Buildings to Withstand Seismic Forces, Design Steel Structures with Different Dissipation Devices, Seismic Retrofit and Rehabilitation of Existing Steel Structures, Resilience Based Design Modeling of Steel Structures

### Selected Publications:

Lucia Tirca and Liang Chen, “Numerical simulation of inelastic cyclic response of HSS braces upon fracture”, Advanced Steel Construction, Vol. 10, No. 4, pp 442-462, 2014

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

Melina Bosco and Lucia Tirca, “Numerical simulation of steel I-shaped beams using a fiber-based damage accumulation model”, Journal of Constructional Steel Research, Vol. 133, pp 241-255, June 2017