



Professor Cilmar D. Basaglia

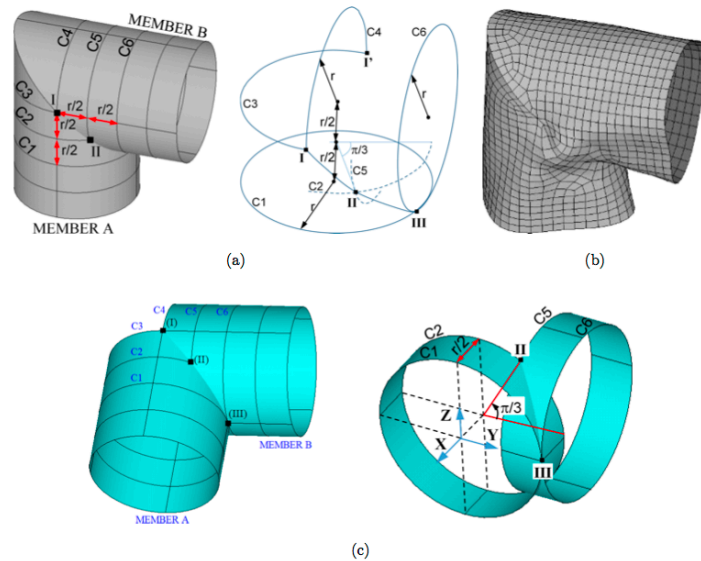


Fig. 10. Unstiffened joint connecting two orthogonal CHS members (CHS knee joint): (a) overall configuration and definition of the relevant circumferences, (b) shell finite element modeling of the end cross-section displacement compatibility and (c) location of the end cross-section points where the joint is deemed materialized.

From: Cilmar Basaglia, Dinar Camotim and Nuno Silvestre, “Buckling and vibration analysis of cold-formed steel CHS members and frames using Generalized Beam Theory”, *International Journal of Structural Stability and Dynamics*, Vol. 15, No. 8, 1540021, December 2015

See:

<https://scholar.google.com/citations?user=7qf8LjQAAAAJ&hl=ja>

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Research Interests:

Structural mechanics; Thin-walled structures; Steel structures; Computational methods; Mechanics of materials

Selected Publications:

Camotim, D., Silvestre, N., Dinis, P., Bebiano, R., and Basaglia, C. (2006a). Recent progress in the numerical analysis of thin-walled steel members and frames. In *Proceedings of International Symposium on Innovative Design of Steel Structures*, B. Young (Editor), (Hong Kong, 10/11), pages 63–104. 2.1.6

Basaglia, C., Camotim, D., and Silvestre, N. (2007a). GBT-based analysis of the local and global buckling behavior of thin-walled steel frames subjected to arbitrary loadings. In *Proceedings of Fifth International Conference on Advances in Steel Structures (ICASS 2007 – Singapore, 05-07/12)*, pages 309–315. 2.1.6

Basaglia, C., Camotim, D., and Silvestre, N. (2007b). GBT-based analysis of the local-plate, distortional and global buckling behavior of thin-walled steel frames. In *Proceedings of Structural Stability Research Council 2007 Annual Stability Conference (SSRC2007 – New Orleans, 18-21/04)*, pages 391–412. 2.1.6

Camotim D., Basaglia C., Silvestre N., 2008, GBT buckling analysis on thin-walled steel frames, *Proceedings of the fifth International Conference on Coupled Instabilities in Metal Structures CIMS2008*, Rasmussen K. and Wilkinson T. (Eds.), University Publishing Service, The University of Sydney, 1-18

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Basaglia, C., Camotim, D., and Silvestre, N. (2008a). GBT-based post-buckling analysis of thin-walled steel members and frames. In Proceedings of Structural Stability Research Council 2008 Annual Stability Conference (SSRC 2008 – Nashville, 02-05/04), pages 215–237. 2.1.6

Basaglia, C., Camotim, D., and Silvestre, N. (2008b). Global buckling analysis of plane and space thin-walled frames in the context of GBT. *Thin-Walled Structures*, 46:79–101. 2.1.6

D. Camotim, N. Silvestre, C. Basaglia and R. Bebiano, “GBT-based buckling analysis of thin-walled members with non-standard support conditions”, *Thin-Walled Structures*, Vol.46, Nos. 7-9, July-September 2008, pp. 800-815

Basaglia, C., Camotim, D., and Silvestre, N. (2009). Non-linear Generalized Beam Theory formulation for open-section thin-walled members with arbitrary support conditions. In Proceedings of the Twelfth International Conference on Civil, Structural and Environmental Engineering Computing (CC 2009 – Funchal, Portugal, 01-04/09). Civil-Comp Press. (full paper on CD-ROM proceedings). 2.1.6

Camotim, D., Basaglia, C., and Silvestre, N. (2010). GBT buckling analysis of thin-walled steel frames: A state-of-the-art report. *Thin-Walled Structures*, 48(10–11):726–43. 2.1.6

D. Camotim, C. Basaglia, R. Bebiano, R. Goncalves and N. Silvestre. Latest developments in the GBT analysis of thin-walled steel structures. Proc. Int. Coll. Stability and Ductility of Steel Struct., Rio de Janeiro, Brazil, E. Batista, P. Vellasco and L. Lima (eds.), 33–58, 2010.

C. Basaglia, D. Camotim, N. Silvestre, “Local, distortional and global post-buckling behaviour of thin-walled steel frames using generalised beam theory”, B.H.V. Topping, et al. (Eds.), Proceedings of Tenth International Conference on Computational Structures Technology (CST 2010 – Valencia, 14–17/9), Civil-Comp Press (2010) (Full Paper in CD-ROM Proceedings)

D. Camotim, C. Basaglia, N.F. Silva, N. Silvestre, “Numerical analysis of thin-walled structures using generalised beam theory (GBT): recent and future developments”, B.H.V. Topping, et al. (Eds.), Computational Technology Reviews, vol. 1, Saxe-Coburg Publications, Stirlingshire (2010), pp. 315-354

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Dinar Camotim, Anisio Andrade and Cilmar Basaglia, “Some thoughts on a surprising result concerning the lateral-torsional buckling of monosymmetric I-section beams”, *Thin-Walled Structures*, Vol. 60, pp 216-221, November 2012

Cilmar Basaglia, Dinar Camotim and Nuno Silvestre, “Post-buckling analysis of thin-walled steel frames using generalized beam theory (GBT)”, *Thin-Walled Structures*, Vol. 62, pp 229-242, January 2013

Cilmar Basaglia and Dinar Camotim, “Enhanced generalized beam theory buckling formulation to handle transverse load application effects”, *International Journal of Solids and Structures*, Vol. 50, Nos. 3-4, pp 531-547, February 2013

Basaglia, C. and Camotim, D., “Buckling, Postbuckling, Strength, and DSM Design of Cold-Formed Steel Continuous Lipped Channel Beams.” *J. Struct. Eng.* 139, SPECIAL ISSUE: Cold-Formed Steel Structures, 657–668, 2013

Cilmar Basaglia, Dinar Camotim, Rodrigo Goncalves and Andre Graca, “GBT-based assessment of the buckling behavior of cold-formed steel purlins restrained by sheeting”, *Thin-Walled Structures*, Vol. 72, pp 217-229, November 2013

Dinar Camotim and Cilmar Basaglia, “On the behaviour, failure and direct strength design of thin-walled steel structural systems”, *Thin-Walled Structures*, Vol. 81, pp 50-66, August 2014

- Cilmar Basaglia, Dinar Camotim and Humberto Coda, "Behaviour, failure and DSM design of cold-formed steel beams: Influence of the load point of application", *Thin-Walled Structures*, Vol. 81, pp 78-88, August 2014
- Basaglia C, Landesmann A and Camotim D (2014b) Distortional post-buckling strength of CFS columns GBT-based assessment of the cross-section geometry influence. In: European conference on steel and composite structures, Eurosteel, 10–12 September, Naples.
- Cilmar Basaglia and Dinar Camotim, "Buckling analysis of thin-walled steel structural systems using Generalized Beam Theory (GBT)", *International Journal of Structural Stability and Dynamics*, Vol. 15, No. 1, 1540004, January 2015
- Cilmar Basaglia, Dinar Camotim and Nuno Silvestre, "Buckling and vibration analysis of cold-formed steel CHS members and frames using Generalized Beam Theory", *International Journal of Structural Stability and Dynamics*, Vol. 15, No. 8, 1540021, December 2015
- Rui Bebiano, Cilmar Basaglia, Dinar Camotim and Rodrigo Goncalves, "GBT buckling analysis of generally loaded thin-walled members with arbitrary flat-walled cross-sections", *Thin-Walled Structures*, Vol. 123, pp 11-24, February 2018
- Cilmar Basaglia, Dinar Camotim and Humberto Breves Coda, "Generalised beam theory (GBT) formulation to analyse the vibration behaviour of thin-walled steel frames", *Thin-Walled Structures*, Vol. 127, pp 259-274, June 2018