



**Professor Merih Kucukler**

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[https://www.researchgate.net/profile/Merih\\_Kucukler](https://www.researchgate.net/profile/Merih_Kucukler)

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**Biography:**

Professor Kucukler obtained his PhD in Structural Engineering from Imperial College London, from where he also received an MSc with Distinction in Structural Steel Design. Dr Kucukler's PhD research focused on the development of a new, stiffness reduction based design approach for steel structures, where methods for the assessment of a broad range of instability phenomena encountered in steel structures on the basis of this new design philosophy were derived. After obtaining his PhD, he worked at Imperial College London as a Postdoctoral Research Associate within the steel structures research group. Following his Postdoc position at Imperial College, he joined the University of Warwick as an Assistant Professor. Dr Kucukler is a member of the Editorial Board of the Structures journal of Elsevier. He is also a peer reviewer for a number of top ranking research journals in his field such as Engineering Structures, Journal of Constructional Steel Research, Thin-Walled Structures, International Journal of Steel Structures, ASCE Journal of Structural Engineering and Structures. He is engaged in teaching in the subjects of computational modelling and steel structures. His research interests primarily lie in the areas of structural stability, laboratory testing, numerical modelling and development of structural steel design methods.

**Research Interests:**

Structural stability, steel structures, steel-concrete composite structures, numerical modeling, laboratory testing, development of structural steel design methods

**Selected Publications:**

- Kucukler, Merih, Xing , Zhe, Gardner, Leroy. 2020. Behaviour and design of stainless steel columns in fire. Journal of Constructional Steel Research, 165
- Xing , Zhe, Kucukler, Merih, Gardner, Leroy. 2020. Local buckling of stainless steel plates in fire. Thin-Walled Structures, 148
- Kucukler, Merih. 2020. Compressive resistance of high-strength and normal-strength steel CHS members at elevated temperatures. Thin-Walled Structures, 152
- Kucukler, Merih. 2020. Lateral instability of steel beams in fire : behaviour, numerical modelling and design. Journal of Constructional Steel Research, 170

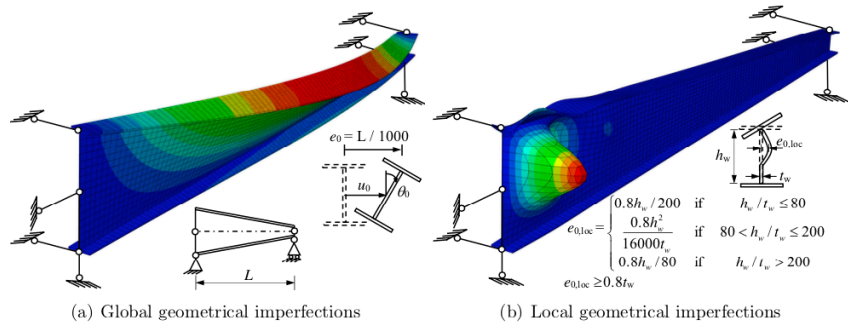


Figure 3: Incorporation of geometrical imperfections into finite element models using global and local buckling modes

Kucukler, Merih, Gardner, Leroy. 2019. Design of web-tapered steel beams against lateral-torsional buckling through a stiffness reduction method. Engineering Structures, 190, pp. 246-261

- Kucukler, Merih, Gardner, Leroy, Bub, Yidu. 2020. Flexural-torsional buckling of austenitic stainless steel I-section beam-columns : testing, numerical modelling and design. *Thin-Walled Structures*, 152
- Kucukler, Merih, Gardner, Leroy. 2019. Design of web-tapered steel beams against lateral-torsional buckling through a stiffness reduction method. *Engineering Structures*, 190, pp. 246-261
- Kucukler, Merih, Gardner, Leroy. 2019. Design of hot-finished tubular steel members using a stiffness reduction method. *Journal of Constructional Steel Research*, 160, pp. 340-358
- dos Santos, G.B., Gardner, L., Kucukler, Merih. 2018. A method for the numerical derivation of plastic collapse loads. *Thin-Walled Structures*, 124, pp. 258-277
- Kucukler, Merih, Gardner, Leroy. 2018. Design of laterally restrained web-tapered steel structures through a stiffness reduction method. *Journal of Constructional Steel Research*, 141, pp. 63-76
- dos Santos, G. B., Gardner, L., Kucukler, Merih. 2018. Experimental and numerical study of stainless steel I-sections under concentrated internal one-flange and internal two-flange loading. *Engineering Structures*, 175, pp. 355-370
- Gardner, L., Yun, X., Macorini, L., Kucukler, Merih. 2017. Hot-rolled steel and steel-concrete composite design incorporating strain hardening. *Structures*, 9, pp. 21-28
- Kucukler, Merih, Gardner, Leroy, Macorini, Lorenzo. 2016. Development and assessment of a practical stiffness reduction method for the in-plane design of steel frames. *Journal of Constructional Steel Research*, 126, pp. 187-200
- Kucukler, Merih, Gardner, Leroy, Macorini, Lorenzo. 2015. Lateral-torsional buckling assessment of steel beams through a stiffness reduction method. *Journal of Constructional Steel Research*, 109, pp. 87-100
- Kucukler, Merih, Gardner, Leroy, Macorini, Lorenzo. 2015. Flexural-torsional buckling assessment of steel beam-columns through a stiffness reduction method. *Engineering Structures*, 101, pp. 662-676
- Kucukler, Merih, Gardner, Leroy, Macorini, Lorenzo. 2014. A stiffness reduction method for the in-plane design of structural steel elements. *Engineering Structures*, 73, pp. 72-84
- Gardner, Leroy, Macorini, Lorenzo, Kucukler, Merih. 2013. The continuous strength method for steel and composite design. *Proceedings of the Institution of Civil Engineers - Structures and Buildings*, 166 (8), pp. 434-443