



## Commission XIII - Fatigue of welded components and structures

### Draft Agenda for the 73<sup>rd</sup> IIW 2020 On-line Annual Assembly

15<sup>th</sup> – 25<sup>th</sup> July 2020

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Overview of C-XIII meeting schedule

Thursday, 23 <sup>rd</sup> July	Friday, 24 <sup>th</sup> July
C-XIII main Commission meetings 13:00 – 16:10 CET	C-XIII main Commission meetings 13:00 – 16:30 CET



**MAIN COMMISSION XIII MEETINGS**

Thursday, 23<sup>rd</sup> July

13:00 – 16:10

**Session 1**

Welcome, opening remarks and Commission business			13:00-13:20
XIII-2846-2020   XV-1607-2020	Provisions for avoiding brittle fracture at steels used in Australasia	A.F. Hobbacher and M. Karpenko	13:20-13:40
XIII-2848-2020	Effect of surface layer on the fatigue strength of additively manufactured 17-4PH steel	M. Leitner, W. Schneller, S. Springer, F. Grün	13:40-14:00
XIII-2850-2020	Stress magnification factor for angular misalignment between plates with welding-induced curvature	F. Mancini, H. Remes, J. Romanoff, B. Reinaldo Goncalves	14:00-14:20
XIII-2851-2020	Effective numerical method for evaluating stress intensity factors of interacting arbitrary-shaped 3D cracks	M. Åman, K. Berntsson, G. Marquis, H. Remes	14:20-14:40
Break			14:40-14:50
XIII-2853-2020	Determination of notch factors for welded T-joints based on numerical analysis and metamodeling	M. Oswald, K. Rother, S. Springl	14:50-15:10
XIII-2854-2020	Influence of geometric size effect on fatigue strength of longitudinal welded gusset joints in as-welded and HFMI-treated state	Y. Ono, C. Baptista, K. Kinoshita, H. C. Yildirim, A. Nussbaumer	15:10-15:30
XIII-2855-2020	Multiaxial fatigue assessment of thin walled tube-tube steel joints with weld ends using the peaks stress method	A. Campagnolo, G. Meneghetti, M. Vormwald, E. Shams	15:30-15:50
XIII-2856-2020	2D Fracture Mechanics Analysis of HFMI Treatment Effects on the Fatigue Behaviour of Structural Steel Welds	R. Ranjan, S. Walbridge	15:50-16:10
Close			16:10



**MAIN COMMISSION XIII MEETINGS**

**Friday, 24<sup>th</sup> July**

**13:00 – 16:10**

**Session 2**

Welcome			13:00
XIII-2857-2020	Finite element simulation of multi-layer repair welding and experimental investigation of the residual stress fields in steel welded components	A. Sarmast, J. Schubnell, M. Farajian	13:00- 13:20
XIII-2858-2020	Deep rolling as an effective tool for fatigue improvement of tubular welded joints	J. Schubnell, L. Mayer, M. Farajian	13:20- 13:40
XIII-2859-2020	Detection of crack in painted flange gusset welded joint by ultrasonic test	H. Shirahata, S. Hirayama, S. Ono	13:40- 14:00
XIII-2860-2020	Comparative Study on Stress Intensity Factors for Surface Cracks in Welded Joint and Flat Plate by Using the Influence Function Method	P.M. Kyaw, N. Osawa, R. Gadallah, S. Tanaka	14:00- 14:20
Break			14:20- 14:30
XIII-2861-2020	Fatigue strength improvement by weld toe grinding: a data review	M. Braun and X. Wang	14:30- 14:50
XIII-2862-2020	Fatigue strength assessment of ground fillet-welded steel joints using 4R method	A. Ahola, A. Muikku, M. Braun, T. Björk	14:50- 15:10
XIII-2864-2020	Performance characterization of high strength steel and quenched and tempered steels and their joints for structural applications	M. Aguiari, M. Palombo, C.M. Rizzo	15:10- 15:30
XIII-2855-2020	Multiaxial fatigue assessment of thin walled tube-tube steel joints with weld ends using the peaks stress method	A. Campagnolo, G. Meneghetti, M. Vormwald, E. Shams	15:30- 15:50
Closing remarks and Commission business (a) Commission XIII WITW paper recommendations (b) 2021 Annual Assembly (c) 2021 Spring Intermediate meetings of Working Groups (d) Any other business			15:50- 16:10
Pre-recorded presentation from the WITW editors			16:10- 16:30
Close			16:30