Seminar Hora Informaticae   Institute of Computer Science, Prague

Tuesday, February 21, 2023, 14.00 – 15.30 (2 - 3:30 PM) CET

Meeting room 318, Address: Pod Vodárenskou věží 2, Prague 8

ZOOM:

https://cesnet.zoom.us/j/95478234977?pwd=dXoyekFHbDJ0MkNrTjVVS3F2STZqUT09

Meeting ID: 954 7823 4977 ,   Passcode: 712564

Pavel Krejčí, Institute of Mathematics, CAS; Faculty of Civil Engineering, CTU:

From discrete to continuous variational inequalities with convex and non-convex constraints.

Constrained optimization problems can often be stated in terms of variational inequalities. The talk will present a method based on the Kurzweil integral calculus which allows to solve discrete and continuous evolution variational inequalities under the same formalism in both the convex and the non-convex case. The results have been published recently in cooperation with G. A. Monteiro (IM CAS Prague) and V. Recupero (Politecnico Torino).

References:

Krejčí Pavel, Monteiro Giselle Antunes, Recupero Vincenzo: Explicit and implicit non-convex sweeping processes in the space of absolutely continuous functions. Applied Mathematics & Optimization 84 (2), 2021, 1477-1504.

 Krejčí Pavel, Monteiro Giselle Antunes, Recupero Vincenzo: Non-convex sweeping processes in the space of regulated functions. Communications on Pure and Applied Analysis 21 (9), 2022, 2999-3029.

———————————————————

Pavel Krejčí [(http://www.math.cas.cz/homepage/main_page.php?id_membre=41)](http://www.math.cas.cz/homepage/main_page.php?id_membre=41)Master degree - Faculty of Mathematics and Physics, Charles University in Prague, 1978; CSc (PhD) - Institute of Mathematics, Czechoslovak Academy of Sciences, 1984; Computer Programmer - Poldi Steel Company Kladno, 1979; Institute of Mathematics, Czechoslovak/Czech Academy of Sciences, Prague: Researcher 1981-2009 and 2014-now, Director 2009-2014; Researcher at Weierstrass Institute (WIAS) Berlin 1997-2000 and 2004-2009; Member of the Academy Council, Czech Academy of Sciences 2017-2021; Associate Professor, Faculty of Civil Engineering, Czech Technical University in Prague 2015-now; Research interests: Mathematical models in continuum physics, PDEs, nonsmooth processes, hysteresis. Publications: 2 books, about 150 papers, H-index (WoS) 20; Bernard Bolzano Honorary Medal for Merit in Mathematical Sciences, 2014.

———————————————————

HORA INFORMATICAE (meaning: TIME FOR INFORMATICS) is a broad-spectrum scientific seminar devoted to all core areas of computer science and its interdisciplinary interfaces with other sciences and applied domains. Original contributions addressing classical and emerging topics are welcome. Founded by Jiří Wiedermann, the seminar is running since 1994 at the Institute of Computer Science of the Czech Academy of Sciences in Prague.

https://www.cs.cas.cz/horainf