MME Seminar 2019

Session 1

Date: 1 February 2019 (Friday)
Time: 4.00 pm
Venue: MME Journal Rm (NIE7-3-16)

Four dcpos, a theorem and an open problem

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Abstract

From the very early days of continuous lattice theory, the question of the sobriety of the Scott topology has been of interest. In this talk, I will review the 1981 construction by Peter Johnstone of a dcpo which has a non-sober Scott topology, then a conceptually simpler construction proposed by Xiaodong Jia which has the added property that its Scott topology is well-filtered. Jia's construction is a useful link for understanding the example of a non-sober complete lattice given by John Isbell in 1982. Isbell's paper is often cited but rarely read, which is a shame because the construction is ingenious. From recent results of Lawson and Xi we know that Isbell's lattice is well-filtered in the Scott topology.

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All are welcome!