Logic Session - Tuesday, September 20, 2022

9:00

Gabriele Buriola, University of Verona

Higman and Kruskal in Reverse and Constructive Mathematics

10:00-11:00 working groups

11:00-11:30 coffee break

10:00

Daniel Wessel, University of Verona

Towards free radical theory (wip)

12:30-15:30 lunch break

Abstracts

Gabriele Buriola, University of Verona

Higman and Kruskal in Reverse and Constructive Mathematics

Higman's lemma and Kruskal's theorem are two of the most celebrated results in the theory of well quasi-orders. In his seminal paper G. Higman obtained what is known as Higman's lemma as a corollary of a more general theorem and, subsequently, Kruskal used Higman's results for proving his famous Tree theorem.

Despite the rich literature regarding these two achievements, some aspects, in particular in the contexts of Reverse and Constructive Mathematics, are not yet completely clear and represent the goals for further investigations.

Daniel Wessel, University of Verona

Towards free radical theory (wip)

There ought to be "free" radicals that account for a fundamental analogy relating principles such as those of Szpilrajn/Dushnik-Miller and Krull/Frattini-Jacobson. We employ basic concepts from domain theory to obtain a rather broad perspective, and try to read the latter in the context of dynamical algebra.