

Supervisor's Report on Master's Thesis
**Filip Jankovec: Minimal Taylor Clones on
Three Elements**

Zarathustra Brady provided a complete list of minimal Taylor clones on a three-element domain, i.e., minimal clones that satisfy some nontrivial idempotent Mal'cev condition (or, from a computational perspective, clones that give the "hardest tractable" constraint satisfaction problems). There is 24 such clones, up to renaming the domain elements. Brady describes these clones by means of generating operations. The aim of the thesis was to obtain a better understanding of these clones by giving a satisfactory description of their members and by finding a generating set of invariant relations.

Filip Jankovec succeeded for 12 of these clones. For some of them, the two goals were quite simple to achieve, but required understanding of several known results. The remaining clones, namely the 5 clones studied in Sections 5 and 6, needed substantial work. The results are publishable in an impacted journal.

Filip is not yet particularly strong in clear and concise scientific writing. We invested significant effort into improving the presentation but there still remained plenty of room for further improvements. Despite this shortcoming, I think that **the thesis is overall very good and I recommend to accept it as a Master's thesis.**

Prague, 7 June 2022



Libor Barto