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Scientific Report

In the period between September 11th and September 25th I was visiting Mirna Džamonja of the University of East Anglia who is currently on sabbatical at the Université Paris Diderot.

During that time we continued working on our joined project on the forcing construction of \square_{ω_1} using finite conditions. We had previously constructed a forcing notion that generates \square_{ω_1} , and proved that it is proper. During this visit we proved that it preserves ω_2 as well. By carefully manipulating forcing conditions, we managed to ensure that the forcing notion is ω_2 -presaturated which is basically a generalization of properness to ω_2 .

The result of our work is that we successfully finished the desired construction and the paper was sent to Transaction of the American Mathematical Society.

Our joint work on this project is therefore finished but in the near future we might continue our collaboration because the aforementioned project seems a very good starting point for similar constructions on higher cardinals – a so far unexplored territory.