CLAUDE LAFLAMME, University of Calgary

How many siblings do you have?

Two structures are *siblings*, or *equimorphic*, if each embeds in the other. The famous Cantor-Bernstein-Schroeder Theorem states that, in a language with pure equality, equimorphic structures (sets) are isomorphic. This is the case for various other structures, but in the general equimorphic structures need not to be isomorphic.

The main objective of this program is to understand these equimorphic structures, with a first step being simply to count siblings (up to isomorphy).

Bonato and Tardif conjectured [06] that any tree having a non-isomorphic sibling must have infinitely many such siblings (up to isomorhism). Thomassé proposed a related conjecture [00], that any countable relational structures with at most countably many relations must have either one, \aleph_0 , or 2^{\aleph_0} siblings (up to isomorhism).

We will briefly review progress made on those conjectures and present recent joint results on \aleph_0 -categorical structures.

Both conjectures remain open.