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**ASIYEH SANA EI**, Brock University

*Three-colourability of planar graphs without 5-cycles and triangular 3- and 6-cycles*

Steinberg's conjecture (1976) asserts that every planar graph without 4- and 5-cycles is 3-colourable. Despite several attempts, the conjecture remains unsettled, and the relaxations of the problem including avoiding a certain collection of cycles of short lengths are considered. Among many other things, it is known that planar graphs without adjacent triangles and without 5- and 7-cycles are 3-colourable. We make an improvement to this result by showing that planar graphs without 5-cycles and without triangles adjacent to 3- and 6-cycles are 3-colourable.

Joint work with Babak Farzad.