# Ramsey Theory of Equations: Report from Pisa

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Before Ramsey asked about structure in colored graphs, Schur investigated colored integers relative to equations. Building on the work of Schur's student Rado, there have been increasing efforts to refine and extend this field since the 1980s. There were two major results in 2016, including resolution of the "Boolean Pythagorean triples problem" that made press as the world's longest proof (it has since been superseded by another related proof). Two weeks ago in Pisa, Italy, both established and emerging researchers in the field met to discuss next steps and surprising new techniques. I did a little related work in 2005 and was very interested to hear about the state of the art. In this talk, I'll survey what I learned, some of my initial responses, and avenues of research that may not require the high powered tools. And I'll show a picture of the famous leaning tower.