Enumerative aspects of tropical geometry

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Abstract:
The main purpose of this mini-course is to present several applications of tropical geometry in real and complex enumerative problems. In particular, we will discuss various combinatorial and recursive formulas designed for a calculation of Gromov-Witten type invariants (complex case) and Welschinger invariants (real case). We will also discuss so-called refined (or quantum) enumeration of tropical curves and its applications.