Tropical geometry

Tropical geometry is a combinatorial shadow of algebraic geometry. It is geometry over the tropical semiring, where multiplication is replaced by addition, and addition is replaced by minimum. This turns (algebraic)-geometric questions into questions from polyhedral combinatorics.

Maclagan will give a gentle introduction to this twenty-first century field, giving some idea of where it can be applied, both inside and outside algebraic geometry.

No knowledge of algebraic geometry will be assumed.

Diane Maclagan is a Professor of Mathematics at the University of Warwick in the United Kingdom. She obtained her PhD in 2000 from UC Berkeley, and moved to Warwick in 2007, following postdoctoral positions and a tenure-track job in the US. She is a co-author of the textbook "Introduction to tropical geometry".