# Implicitization of surfaces via geometric tropicalization

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In this talk we discuss recent developments in tropical methods for impliciti-
zation of surfaces. This study was pioneered in the generic case by work of
Sturmfels, Tevelev and Yu, and is based on the theory of geometric tropicaliza-
tion, developed by Hacking, Keel and Tevelev. The latter hinges on computing
the tropicalization of subvarieties of tori by analyzing the combinatorics of their
boundary in a suitable (tropical) compactification. We enhance this theory by
providing a formula for computing weights on tropical varieties, a key tool for
tropical implicitization. Finally, we address the question of tropical implicitiza-
tion for non-generic surfaces and illustrate our techniques with several numerical
examples in 3-space.