

# Polytopal decompositions and compactified Jacobians

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It has been long known that to a polytopal decomposition of the tropical Jacobian of a metric graph we can associate a compactification of the Jacobian of the corresponding curve using Mumford's construction. I will report on ongoing work describing the polytopal decompositions giving rise to the Simpson compactifications in terms of divisors on the graph, giving the decomposition a modular interpretation in tropical geometry. This extends the recent work of Abreu and Pacini who studied this for Esteves' compactification. I will give an example in degrees  $g - 1$  and  $g$ , where the underlying posets have an independent combinatorial description.