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Melody Chan*, One Oxford Street, Cambridge, MA 02138, and **Pakawut Jiradilok**. *Tropical K_4 quartics*. Preliminary report.

Let X be a smooth, proper curve of genus 3 over a complete and algebraically closed nonarchimedean field. We say X is a K_4 -curve if the nonarchimedean skeleton Γ of X is a metric K_4 , i.e. a complete graph on 4 vertices.

We prove that X is a K_4 -curve if and only if X has an embedding in \mathbb{P}^2 whose tropicalization has a strong deformation retract to a metric K_4 . We then use such an embedding to show that the 28 odd theta characteristics of X are sent to the seven odd theta characteristics of Γ in seven groups of four. We give an example of the 28 bitangents of a *honeycomb plane quartic*, computed over the field $\mathbb{C}\{\{t\}\}$, which shows that in general the 4 bitangents in a given group need not have the same tropicalizations. (Received September 02, 2014)