

Undergraduate Colloquium in Mathematics

Wednesday, February 14th, 3:00 PM – 4:00 PM

STV 346

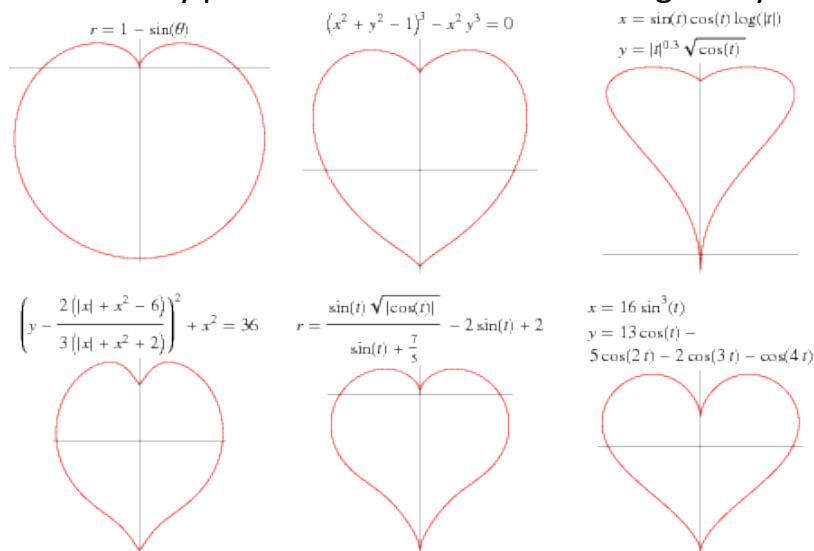
Just in time for Valentine's Day: Love Affairs, Disease, and Differential Equations

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Abstract:

Should you look for a romantic partner that is just like you or do opposites attract? How does our confidence or our fear of commitment alter our own relationships? In this Valentine's Day-themed talk I will discuss how differential equations can shape the way we view relationships. We will first focus on the individual level and use properties of differential equations to reimagine the classic story of star-crossed lovers. Of course, not all relationships end as well as Romeo and Juliet. Some end with the spread of infectious diseases. The second half of the talk will focus on how the study of differential equations aid in our understanding of disease dynamics and may provide methods of controlling costly outbreaks.



[Weisstein, Eric W. "Heart Curve." From MathWorld--A Wolfram Web Resource. http://mathworld.wolfram.com/HeartCurve.html](http://mathworld.wolfram.com/HeartCurve.html)

