Michigan Math Club

Thursday at 4pm in the Commons
Free Pizza and Pop

Good Approximations by Fractions

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Abstract for 24 February 2011

The two comparably sized fractions 314/100 and 355/113 both give approximations to π, yet one is considerably more accurate than the other. (Go ahead, check it on your calculator!) In general, we can ask: How well can a given irrational real number be approximated by fractions of a certain size? I'll discuss how this ancient and practical concern brings us face to face with the seemingly esoteric notions of algebraic and transcendental numbers.