Venn/Euler diagrams

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Abstract

Among the most familiar of all visual aids is the Venn diagram. They were introduced by John Venn as an alternative to the diagrams that Euler used in his "Letters to a German Princess". Euler used his diagrams as a tool for understanding and reasoning about syllogisms.

In this talk we will review the history of Venn/Euler diagrams, discuss some of their essential mathematical properties, some of their many uses, some recent results about them, and some of the fundamental Venn/Euler problems that remain to be resolved.

The talk will be lavishly illustrated and accessible to the non-specialist. Among the specific topics to be covered are: What is NOT known about 3-Venn diagrams(!); What is a minimum area Venn diagram?; How do you draw a Venn diagram symmetrically?; and can Venn diagrams be drawn (symmetrically) on the sphere?