

The Language of Life: When Mathematics Speaks to Biology

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Abstract

Mathematics often is described as the language of science, particularly suited to speak to problems in physics, chemistry, engineering, and so on. Is mathematics also the language of life, suited to speak to problems in biology? Indeed, mathematics has a long and rich history in biology, and the reality is that today's biology depends increasingly on data, algorithms, and models; mathematics plays an extremely important role in biology. In this talk, I will highlight some particularly noteworthy historical contributions of mathematics in biology, dating back to the late 1600's, make connections to contemporary research in mathematical biology, and discuss how this research impacts our lives.