Singing along with math: The mathematical work of the opera singer Jerome Hines.

For over forty years, Jerome Hines (1921-2003) sang principal bass roles at the Metropolitan Opera in New York and in opera houses around the world. He was also a math major who retained a lifelong interest in mathematics. During the 1950’s Hines published five papers in Mathematics Magazine that were based on work that he had done as a student, and he later produced several lengthy mathematical manuscripts about cardinality and infinite sets. I will discuss some of Hines’ mathematical work, as well as the way in which his undergraduate experience at UCLA converted him from a student with no particular liking for mathematics into an aspiring mathematician. I also hope to explore the question of what mathematics meant to Hines and why, in the midst of demanding musical career, he felt it important for him to develop and publish his mathematical ideas. (Received July 29, 2015)