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**Laurentiu G. Maxim** (jose@math.wisc.edu) and **Jose Israel Rodriguez\***  
(jose@math.wisc.edu), Madison, WI 53706, and **Botong Wang**. *Euclidean distance degree of the  
multiview variety*.

The Euclidean distance degree of an algebraic variety is a well-studied topic in applied algebra and geometry. It has direct applications in geometric modeling, computer vision, and statistics. In this talk, I will discuss how to use non-proper Morse theory to give a topological interpretation of the Euclidean distance degree of an affine variety in terms of Euler characteristics. As a concrete application, I will outline how we solve the open problem in computer vision of determining the Euclidean distance degree of the affine multiview variety. (Received January 23, 2019)