MAR17-2016-030180

Abstract for an Invited Paper for the MAR17 Meeting of the American Physical Society

About Time. Physics, Philosophy and the Battle Between Albert Einstein and Henri Bergson ADAM FRANK, University of Rochester

The historical relationship between physics and philosophy has had many famous high and low points. The two function best when both can challenge and support each other. In this talk I explore the famous debate between Albert Einstein and Henri Bergson over the nature of time. While history rightly judged Einstein to have won the debate in terms of relativity, there were deeper aspects of Bergsons critique that remain unappreciated. We will explore the different ways philosophy approaches the issue of time. In particular, we will look at the Continental Schools, such as Phenomenology, which brings a unique perspective to the debate lying outside the traditional approach of physicists. From this perspective questions related to the act of being an observer, its essential subjective nature and the proper context of physics can be explored.