

**The meta-physics of data: Philosophical science in Semiconductor's animated videos**  
**by Lilly Husbands**

**Abstract**

This article examines video and animation works by the artist-duo Ruth Jarman and Joe Gerhardt, known together as Semiconductor. Over the course of the last decade, their works have come to occupy a unique position in the world of artist's film and video with projects that blend – in philosophically compelling ways – experimental video art techniques, scientific research and digital technology. In works like *All The Time In The World* (2005), *Brilliant Noise* (2006), *Black Rain* (2009) and *Magnetic Movie* (2007), they approach some of the grandest subjects in the physical sciences (geomorphology and astrophysics) in ways that engage with the metaphysical implications of aesthetically mediating natural forces whose magnitude and actual nature far exceed any capacity for normal perception. For these projects, Jarman and Gerhardt have immersed themselves in rigorous research at prestigious scientific institutions such as the NASA Space Sciences Laboratories (SSL) and the Mineral Sciences Department at the Smithsonian National Museum of Natural History. Here they were given privileged access to scientific research technologies as well as personal instruction by some of the foremost scientists in their fields. However, as artists exhibiting their work in gallery contexts, Semiconductor's creative freedoms have been largely unimpeded by obligations to conform to strict scientific accuracy or to the narrative codes of traditional science documentary. Indeed, the single and multi-channel installations that have resulted from their research are hybrid experimental artworks that engage with their subject matter on a number of different levels, with varying degrees and manifestations of scientific 'truth'. In this article I argue that, in spite of their blurring of discipline boundaries, many of their works enact and embody a philosophy of science that is engaged with technological investigation and its ability to expressively reveal the material nature of our universe.