

Bruns Graduate Essay Prize, 2008

Awarded in honor of Edward Bruns

## Sean Miller

"Imagining Braneworlds in String Theory Technical Discourse"

Among the excellent essays submitted for the Bruns Graduate Prize, Sean Miller's "Imagining Braneworlds in String Theory Technical Discourse" stood out not only for the clarity and precision with which he presented not only his argument but also the deeper context of his project; why his argument matters and, specifically, what a rhetorical and literary critical analysis of science writing can add to our understanding of the production of knowledge and our experience of the world. The conceptual clarity of the essay is evident in Miller's identification of a scientific imaginary in two technical articles about string theory. He is careful to explain exactly what he means by a scientific imaginary (too many critics assume that such a term is transparent, which of course it is not) and how it structures conditions of possibility and thereby affects the way the two essays under consideration imagine "the capacity to intervene in the world." The argument turns on how the imaginaries that underpin the argument in these articles enable-or perhaps determineparticular "kinds of interactions between human and non-human, material agencies." Drawing on the work of Andrew Pickering, Miller is interested in the imaginary as a space in which images can be substantiated as objects, which imparts a kind of agency and determines the nature of the interaction between human beings and these image-objects. What he describes elegantly and precisely is nothing less than the material impact of the imagination generally and specifically in relation to string theory. The essay manifests Miller's deep knowledge of the science, but his argument is a "literary" one in that it attends to the way that the language and imagery of the two articles under discussion work independent of the explicit analysis to display the assumptions about the world that inform the science. The essay is full of observations that attend carefully to the literary terms of the articles, such as "one of the surprising features of string theory technical discourse is that in pivotal moments when the authors venture a 'phenomenological interpretation,' as they often put it, vivid imagery tends to take precedence over the more abstruse terminology." That kind of attention to rhetorical and literary detail is what makes this essay so persuasive and so informative. Miller's careful analysis and the conclusions to which they lead demonstrate how the tools of rhetorical and literary critical analysis can offer important insight into scientific assumptions. The essay is at once an excellent discussion of string theory and a brilliant example of the insights that can emerge from literary critical approaches to work in the sciences.