J. T. Fraser  
Mathematics and Time

The structure of mathematics, as revealed by the exploration of axiomatic systems, bears striking similarities to the structure of nature, as revealed by the hierarchical theory of time. It is assumed that this isomorphism is not accidental but reflects the evolutionary development of the human capacity of handling numbers. This assumption permits a conjecture. Namely, if mathematics is found to possess certain systematic uncertainties, than nature must also possess corresponding qualities which may be identified. The paper proposes that the theme of the conference, “time and uncertainty,” be understood in this broad context.

Maria L. Assad  
Time and Uncertainty: A Metaphorical Equation

My first argument posits that concepts of temporality are discursive strategies to harness uncertainty understood as an innate human condition. Saint Augustine’s question of time and some poetic quotes serve as examples to demonstrate the metaphoric use of time in order to attenuate the effects of uncertainty in human affairs. The long history of this substitution is interrupted, however, by Newtonian celestial mechanics, which reduced the metaphoric power of time to quantifiable temporal increments within the construct of differential equations. While classical science continued creating models to explain nature within the conceptual limits of a perfectly reversible and therefore redundant time, poetry, and literature in general, re-discovered the power of time, but through an increasingly radical shift in its relationship to uncertainty. Therefore, using examples from writings by Stéphane Mallarmé and Honoré de Balzac, my second argument explores the possibility that uncertainty is time, not in a metaphoric mode, but as a conceptual identity. Bonding time and uncertainty in this fashion, the examples show further that literary discourse of
the 19th Century projects the nonlinear dynamical thinking that dominates late 20th Century scientific debate.

**John Dolis**

*Thoreau’s Sense of History: Uncertainty, Identity, Representation*

Traditionally, history secures its scope of inquiry by means of “objective” representation, concealing, in turn, the very praxis that organizes it. Passing over (its own) time in order to position its subject matter in the (object) space of its univocal discourse, history, as Michel de Certeau argues, thus bypasses the place of its subject: “the historicity of a nonidentity with itself.” In Thoreau’s *Cape Cod*, issues of identity dissemble both nature and the subject (of history) as well. Fragmentation takes place everywhere – within and without. In this regard, there is no proper view of history, no proper frame of truth that puts reality correctly in (its) place. Thoreau works everywhere against the installation of an over-“view” as such, *Cape Cod* itself a bricolage of “other” texts ([auto]biography, anecdote, chronicle, captivity narratives): a collage of quotation, allusion, figuration. Insisting on the centrality of the individual observer, advocating limitless forms of “uncivil” history (civil disobedience, to be sure), Thoreau wages war with those romantic historians who read history as the stage on which events play themselves out – a stage whose view frames time’s own timeless truth and whose logic denies the individual its own experience as forcefully as it denies to history its “real” significance.

**Jo Alyson Parker**

“Ejected from the Present and Its Certainties”: The Indeterminate Temporality of Hypertext

At first he is simply ejected from the present and its certainties.

– La Jetée

I am in a here and a present moment that has no history and no expectations for the future.

– Shelley Jackson, *Patchwork Girl*

What illuminates our dreams, which take place in total darkness, behind our closed eyes? The memory of light, which no longer exists, or the light of the future, which we take like an advance on tomorrow’s day, even though it is not yet daybreak?

“In both instances it is a nonexistent light,” replied Farabi Ibn Kora.

– Milorad Pavic, *Dictionary of the Khazars*

Up until quite recently, narratives, no matter how disordered the chronological sequence whereby they develop, have been disseminated in Western culture primarily through the medium of the book, and the book demands to be read in an essentially linear fashion.