Example 1: Humanities Abstract

Kenneth Tait Andrews, "'Freedom is a constant struggle': The dynamics and consequences of the Mississippi Civil Rights Movement, 1960-1984" Ph.D. State University of New York at Stony Brook, 1997, p. 620, Aug 1998

This paper examines the impacts of social movements through a multi-layered study of the Mississippi Civil Rights Movement from its peak in the early 1960s through the early 1980s. By examining this historically important case, I clarify the process by which movements transform social structures and the constraints movements face when they try to do so. The time period studied includes the expansion of voting rights and gains in black political power, the desegregation of public schools and the emergence of white-flight academies, and the rise and fall of federal anti-poverty programs. I use two major research strategies: (1) a quantitative analysis of county-level data and (2) three case studies. Data have been collected from archives, interviews, newspapers, and published reports. This paper challenges the argument that movements are inconsequential. Some view federal agencies, courts, political parties, or economic elites as the agents driving institutional change, but typically these groups acted in response to the leverage brought to bear by the civil rights movement. The Mississippi movement attempted to forge independent structures for sustaining challenges to local inequities and injustices. By propelling change in an array of local institutions, movement infrastructures had an enduring legacy in Mississippi.

Problem Statement

This paper examines the impacts of social movements through a multi-layered study of the Mississippi Civil Rights Movement from its peak in the early 1960s through the early 1980s. By examining this historically important case, I clarify the process by which movements transform social structures and the constraints movements face when they try to do so.

Methods

The time period studied in this paper includes the expansion of voting rights and gains in black political power, the desegregation of public schools and the emergence of white-flight academies, and the rise and fall of federal anti-poverty programs. I use two major research strategies: (1) a quantitative analysis of county-level data and (2) three case studies. Data have been collected from archives, interviews, newspapers, and published reports.

Results

This paper challenges the argument that movements are inconsequential. Some view federal agencies, courts, political parties, or economic elites as the agents driving institutional change, but typically these groups acted in response to movement demands and the leverage brought to bear by the civil rights movement. The Mississippi movement attempted to forge independent structures for sustaining challenges to local inequities and injustices.

Conclusion

By propelling change in an array of local institutions, movement infrastructures had an enduring legacy in Mississippi.

Example 2: Science Abstract

Luis Lehner, "Gravitational radiation from black hole spacetimes" Ph.D. University of Pittsburgh, 1998, p. 2797, Dec 1998

The problem of detecting gravitational radiation is receiving considerable attention with the construction of new detectors in the United States, Europe, and Japan. The theoretical modeling of the wave forms that would be produced in particular systems will expedite the search for and analysis of detected signals. The characteristic formulation of GR is implemented to obtain an algorithm capable of evolving black holes in 3D asymptotically flat spacetimes. Using compactification techniques, future null infinity is included in the evolved region, which enables the unambiguous calculation of the radiation produced by some compact source. A module to calculate the waveforms is constructed and included in the evolution algorithm. This code is shown to be second-order convergent and to handle highly non-linear spacetimes. In particular, we have shown that the code can handle spacetimes whose radiation is equivalent to a galaxy converting its whole mass into gravitational radiation in one second. We further use the characteristic formulation to treat the region close to the singularity in black hole spacetimes. The code carefully excises a region surrounding the singularity and accurately evolves generic black hole spacetimes with apparently unlimited stability.

Problem Statement

The problem of detecting gravitational radiation is receiving considerable attention with the construction of new detectors in the United States, Europe, and Japan. The theoretical modeling of the wave forms that would be produced in particular systems will expedite the search and analysis of the detected signals.

Methods

The characteristic formulation of GR is implemented to obtain an algorithm capable of evolving black holes in 3D asymptotically flat spacetimes. Using compactification techniques, future null infinity is included in the evolved region, which enables the unambiguous calculation of the radiation produced by some compact source. A module to calculate the waveforms is constructed and included in the evolution algorithm.

Results

This code is shown to be second-order convergent and to handle highly non-linear spacetimes. In particular, we have shown that the code can handle spacetimes whose radiation is equivalent to a galaxy converting its whole mass into gravitational radiation in one second. We further use the characteristic formulation to treat the region close to the singularity in black hole spacetimes.

Conclusion

The code carefully excises a region surrounding the singularity and accurately evolves generic black hole spacetimes with apparently unlimited stability.