



Interdisciplinary Consortium  
for Applied Research in the  
Environment

National Science Foundation  
Research Training Grant

*Broadening Participation Across the  
Environmental Sciences in & around  
Baltimore Harbor*



Project Title: Spatial pattern of flood hazards associated with intense rainfall events in Baltimore City

UMBC mentor name & department: Dr. Andrew Miller, Geography & Environmental Systems

Partner mentor name & institution: Kim Grove, P.E., Baltimore City Department of Public Works

Brief project description:

There is increasing concern in Baltimore City and other jurisdictions about the frequency of flooding related to intense rainfall events. This includes both riverine flooding and street flooding that occurs when short-duration cloudbursts generate flows that exceed the capacity of the storm sewers. The goal of this research is to work with the city to analyze the spatial distribution, intensity, and frequency of local flooding events of different types; and to characterize the hazards associated with these events in order to assist the city in developing policies to manage the risk more effectively.