



Statistics and Actuarial Science Seminar

Title: Extreme Event Attribution: How does human-influenced climate change alter the frequency and severity of extreme weather

Speaker: Claire Bergin (Maynooth University)

Date: Thu 29th October 2026 at 3:00PM

Location: N0.20 – Science North

Abstract: The WASITUS project aims to build towards an operational event attribution capability for Ireland. As a result, it will be possible to undertake event attribution studies within days to weeks of an extreme climate event. However, it is not enough for the event to be climatically significant; the event must also have a societal and/ or sectoral significance to warrant investigation. The aim of extreme event attribution analysis is to identify if, and how, human-influenced climate change alters the likelihood and severity of noteworthy extreme weather events. This is carried out by comparing gridded weather observations with climate models using various statistical techniques. Results from these analyses determine whether, and to what extent, human-caused climate change has had an impact on different weather events. The impact might be on frequency, severity, or both, and might be either an increase or a decrease. Studies are run very soon after the weather event takes place. This allows the results to be shared with the public while the event is still fresh in people's minds. The end goal of event attribution analysis is to answer; how much did human-influenced climate change contribute to the likelihood and severity of this weather event? This talk will give an overview of the what, why and how of extreme event attribution as well exploring a brief Irish focused case study.