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Mintaek Lee* (mintaeklee@boisestate.edu) and **Jaechoul Lee** (jaechoullee@boisestate.edu). *A Return Level Analysis of the 2016 Blizzard in New York City*. Preliminary report.

A major winter storm brought up to 36 inches of snow in parts of the Northeastern United States for January 22 – 24, 2016. The 2016 blizzard impacted about 102.8 million people with at least 55 deaths, and caused economic losses in a range of \$500 million and \$3 billion. We apply extreme value methods to extreme snowfall and snow depth data from the New York City area to explicate the blizzard’s likelihood in terms of return levels. We use a method suggested by Smith (1990) to correct the underestimated model parameters’ standard error due to spatial and temporal dependence in our data. Our preliminary findings indicate that the 2016 blizzard was about a once in a 50-year event when analyzed under appropriate extreme value analysis techniques. We also use several methods to construct better confidence intervals for return levels. (Received September 20, 2016)