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Poster Title: Evaluation of the Alberta Hail Suppression Project Using Radar Observations
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Abstract: Severe hailstorms occur frequently in and around Calgary, Canada. A series of hailstorms reportedly caused property damages worth about 500 (CAD) million in the last two decades. Weather modification programs conducted since 1997 have tried alleviating hail induced property damages in the region. Currently a scientific research project is being conducted to evaluate the effectiveness of the Calgary weather modification program. The LIDAR Radar Open Software Environment (LROSE) software package is used to analyze the C-band Doppler radar data obtained from the project's operational radar at Olds and from radars operated by Environment Canada to quantify the amount of damaging hail within storms. Two metrics - Vertically Integrated Liquid Water Content (VIL) and Storm Area with reflectivity greater than 60 dBz are used to determine the metric values for seeded and non-seeded cases. Difference between the metric values of the two case types are then used for the evaluation.