

## **Dating New York – tracking the retreat of the Laurentide Ice Sheet**

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The Laurentide Ice Sheet (LIS) covered the New York City area during the Last Glacial Maximum (LGM) and carved the present topography. Fresh bedrock surfaces were exposed by the LIS retreat. Urbanization has led to the modification of much of the present landscape, but the New York area still features witnesses of the glacial activity, in particular the terminal moraines on Long Island, and glacially polished surfaces in Central Park, Morningside Park and Inwood Park in Manhattan.

We present <sup>10</sup>Be surface exposure ages dating the deposition of the Long Islands moraines as well as the retreat of the LIS over Manhattan. We will compare those data to existing and new data sets of corresponding moraines in Connecticut and Rhode Island. The new cosmogenic data allows us to better understand the dynamics of the LIS at the end of the last ice age, including topics such as (i) Was the Termination I of the LIS in sync with mountain glacier system in the Northern Hemisphere? (ii) How is the temporal relation of the LIS collapse and the sealevel curve? (iii) How rapid was the retreat of the LIS?