Department of Meteorology and Climatology,
Faculty of Geography, Lomonosov Moscow State University

Investigation of microclimate and spatio-temporal structure of surface thermal inversions in the winter conditions of the Arctic

(Apatity-case study)

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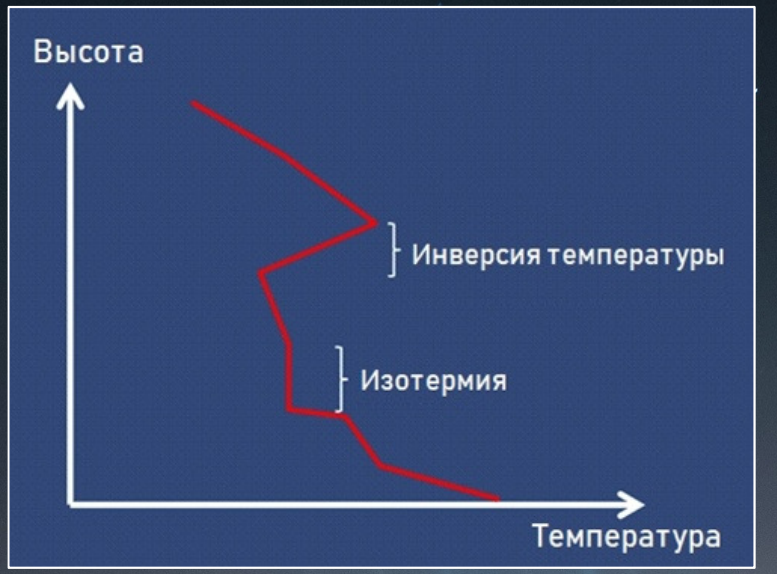
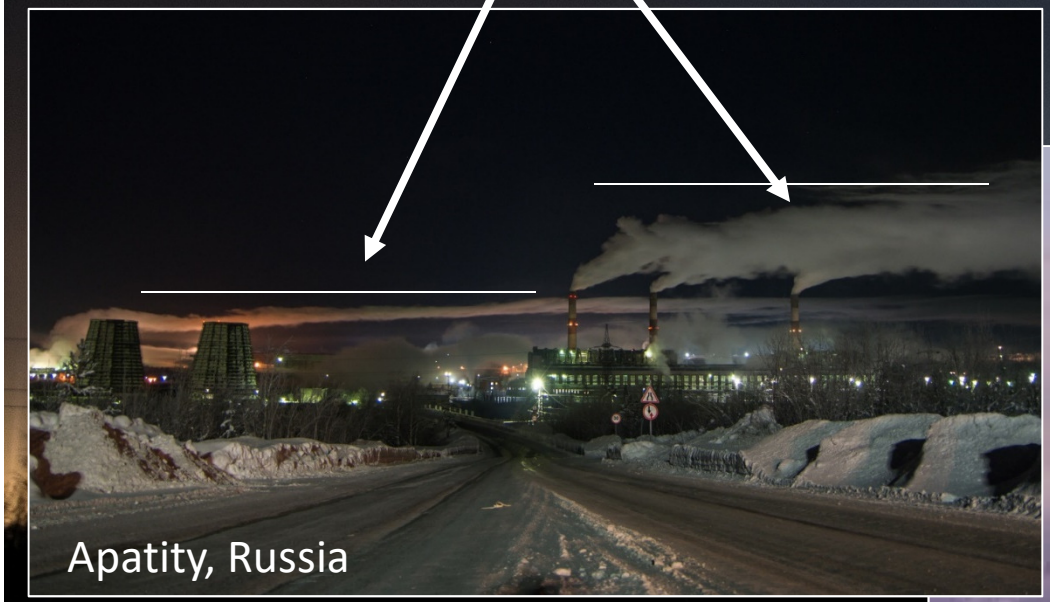
CITES-2019, May 26 – June 6, Moscow, Russia

Motivation

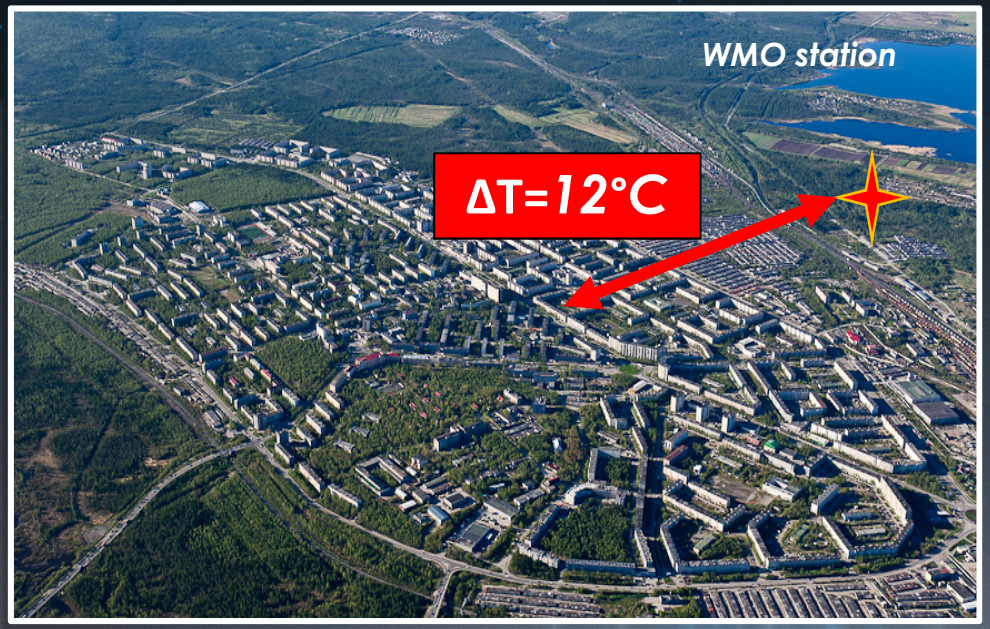
Boundary layer inversions are closely connected with urban air quality

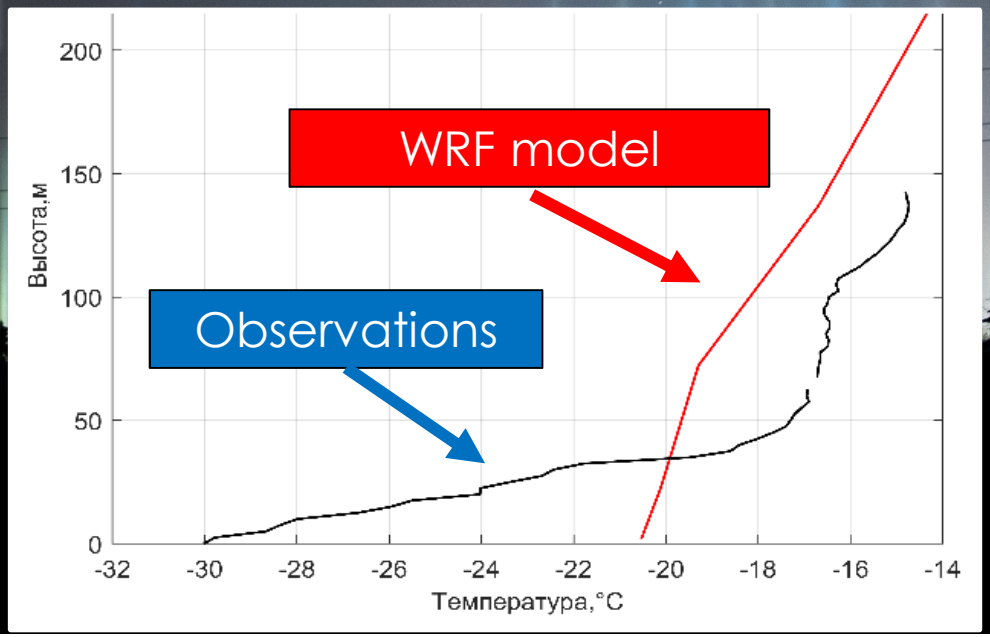



Apatity, Russia


Fairbanks, USA

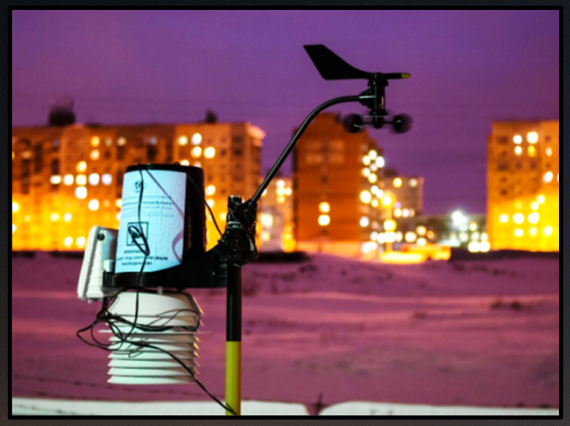
Field measurements





Materials and methods

Traditional AWS

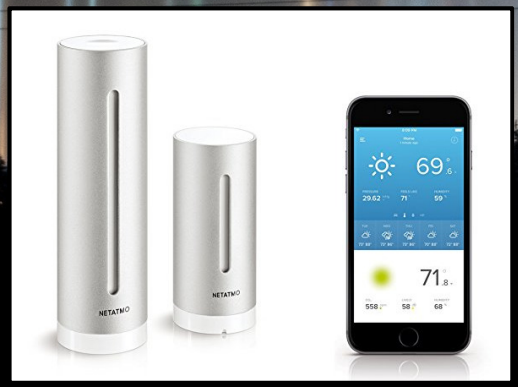


Car-based sounding

Low-cost sensors iButton

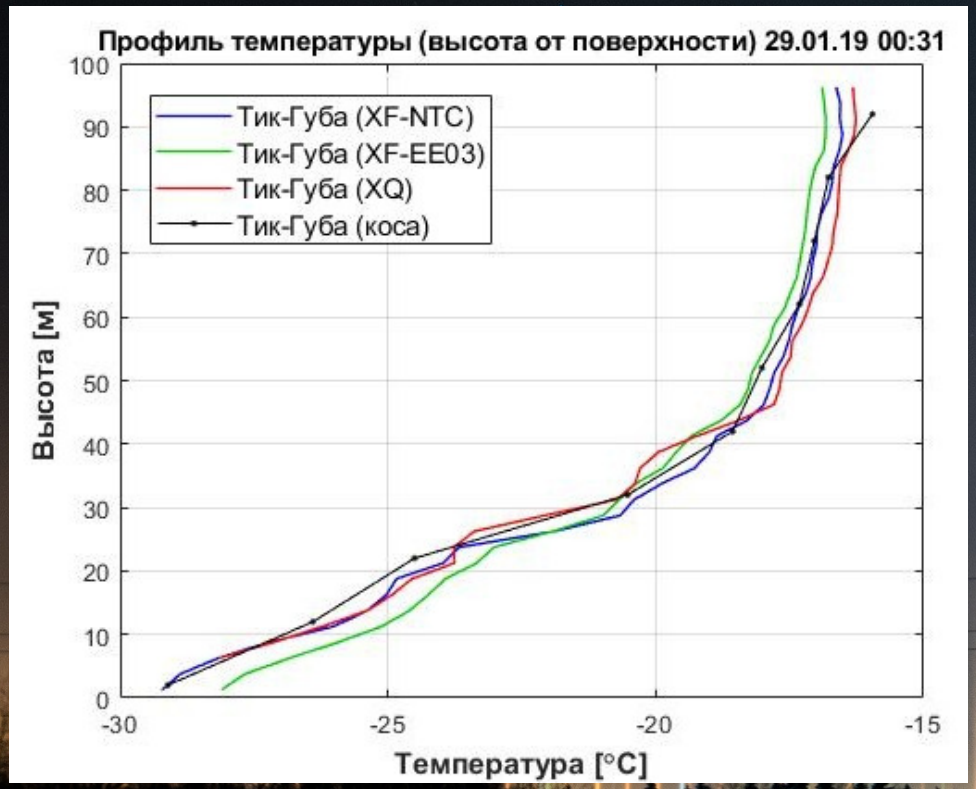
Dron-based sounding

Netatmo-sensors

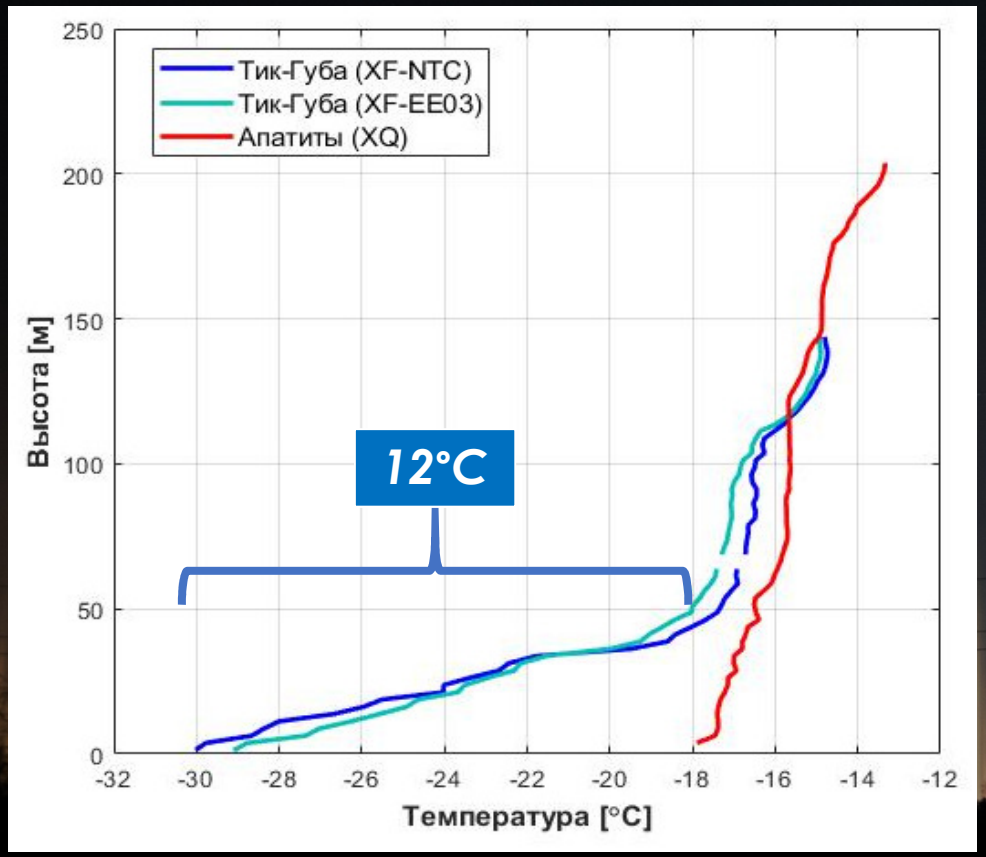


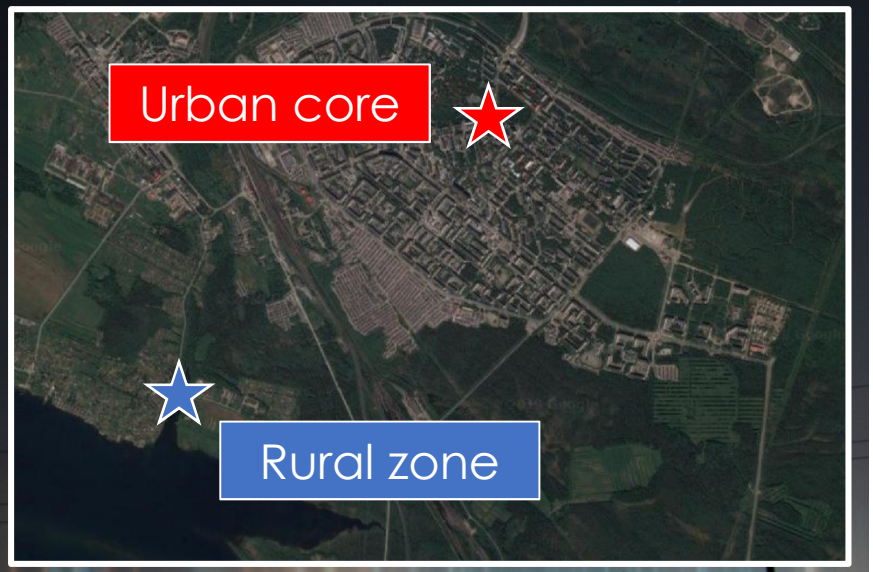
Gradient measurements with HOBO

Soundings with different measuring strategies



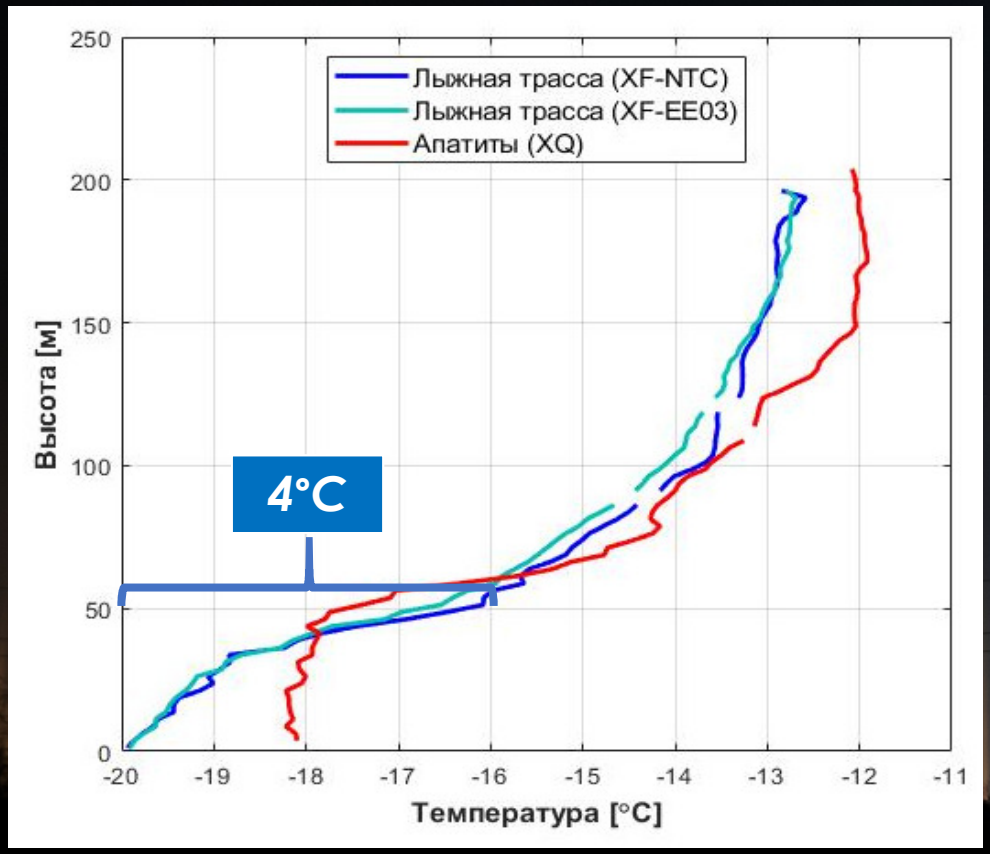
Spatial differences in thermal profiles

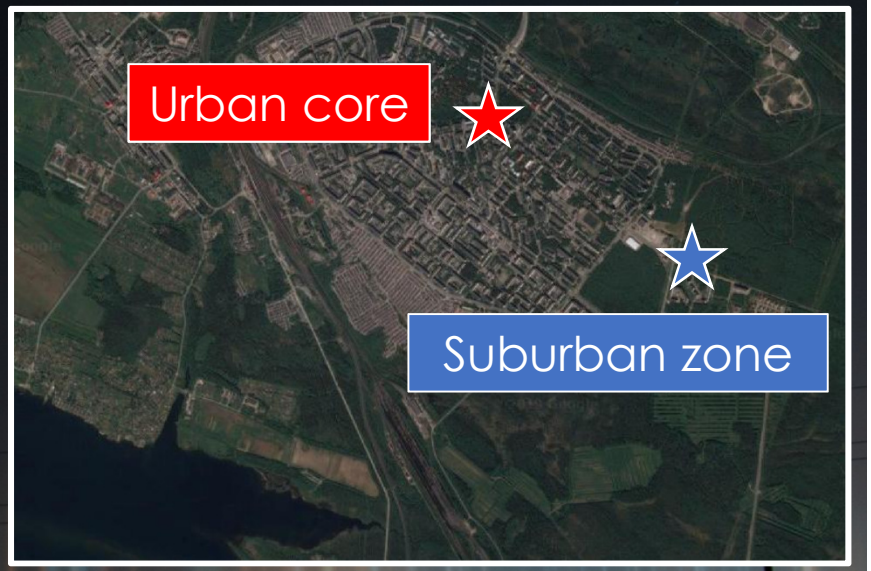




Night time 29/01/19

Spatial differences in thermal profiles

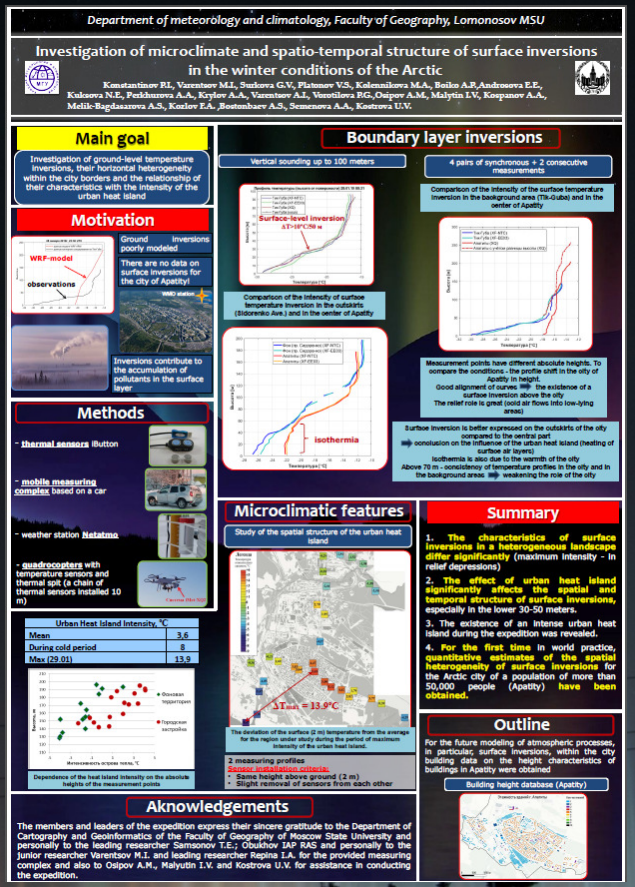




Night time 29/01/19

Our team

Our poster



Thanks for your attention!