

SnowPixel™
DOE – SC 0022516

Miniaturized weather stations with rapid switching between precipitation and meteorological measurement modes

ARM/ASR PI Meeting Participants

Ryan Szczerbinski: Graduate Student, University of Utah

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Pat. No. US20200326456, and Pat. Pend. US 2021-0380400-A1



Particle Flux Analytics, Inc.**Vision:**

Discovery, development and commercialization of innovative, precipitation measurement systems

Serving:

Asset, transportation, safety and scientific customers

5 Patents awarded or pending, 20 + publications

Deliverables include:

Real-time precipitation observations

Snow water equivalent measurement

Droplet by droplet data

Wind speed and direction

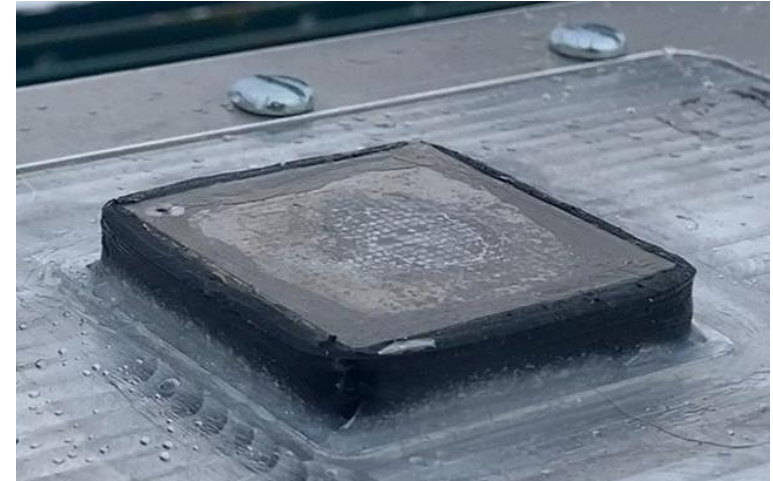
Roadmap candidates:

Dense networks enabling spatiotemporal measurement

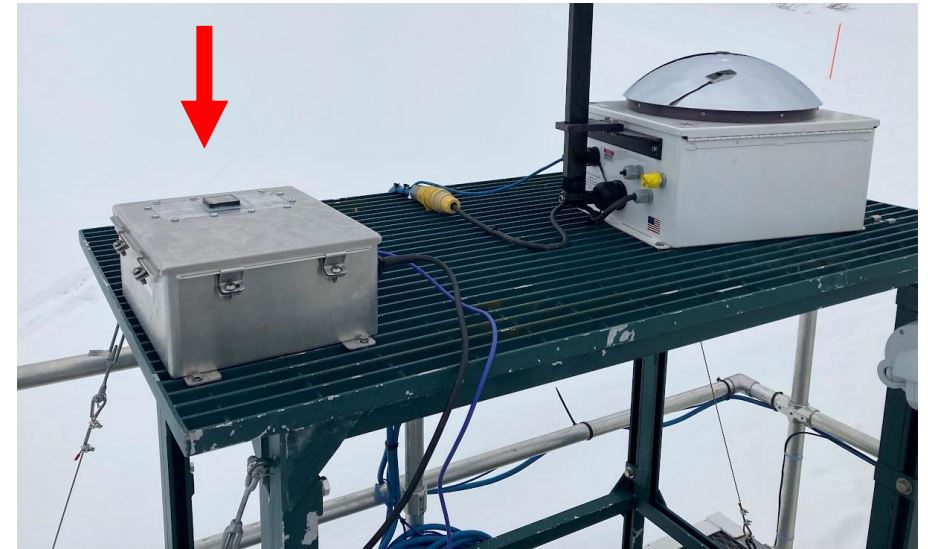
Precipitation densities (avalanche management) use case

Radiation flux

576 individually controlled fast-response micro-electromechanical (MEMS) heaters (“pixels”)



SAIL Site, Gothic, CO



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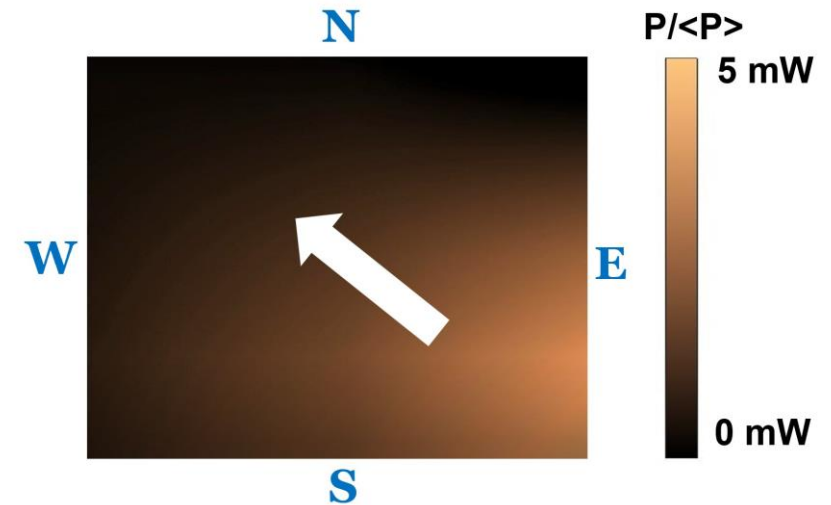
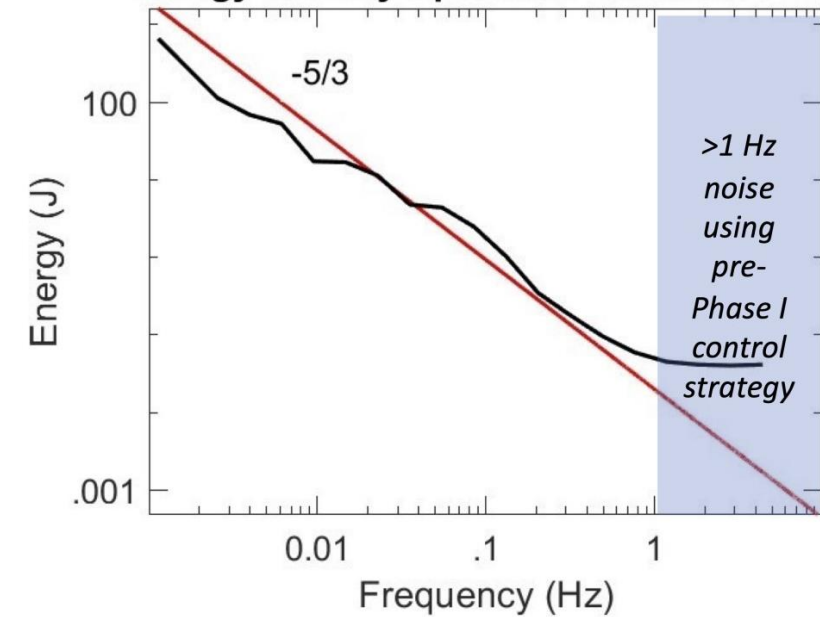
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Energy Density Spectrum from SAIL Site

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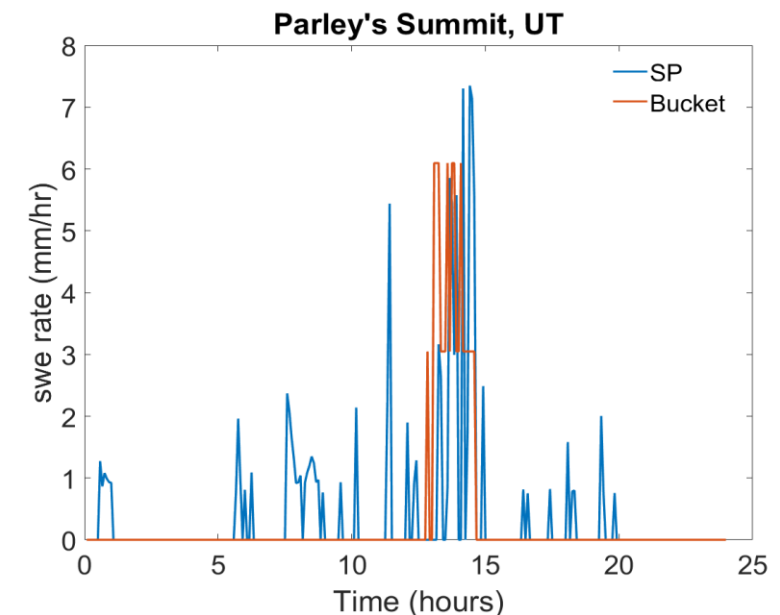
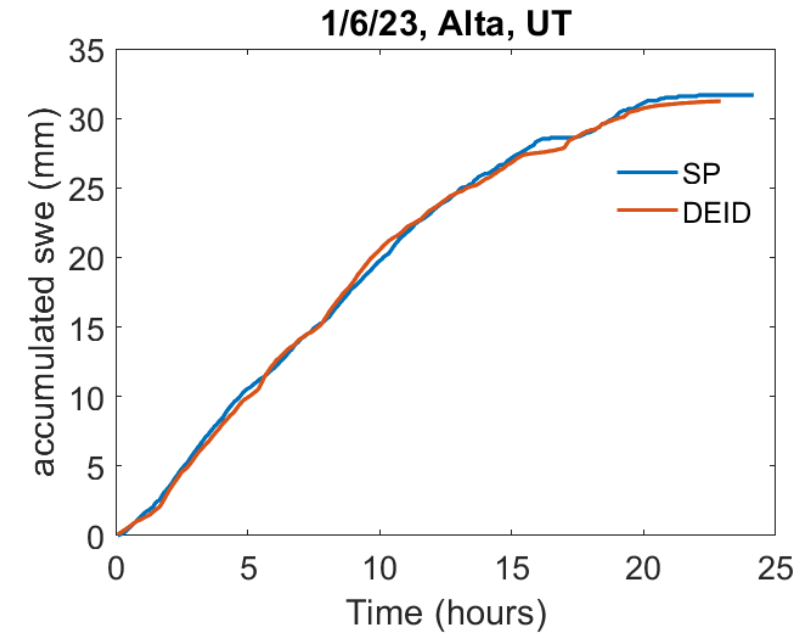
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Summary:

First miniaturized weather station for simultaneous measurement of particle-by-particle precipitation, accumulation, and winds

Fully-operational customer purchased systems are deployed in the Europe and the US

Five scientific and industrial customers to date

TRL 6-7: field proven

Customer advisory board

R & D development and commercialization roadmap

Thank you for the opportunity!

We look forward to discussing your application!

Contact: info@particleflux.net