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*Verisk Weather
Solutions*

11 March 2026

Bridging the Training Gap in Private and Public Sector

- *Session: Accessibility, Workforce Development, and Training Session*
- *Objective: Methods and techniques for training scientists and end-users to make best use of radar data. It will also encompass conversation related to adaptive training tools with changing technology and accessibility to those training resources*

Presentation objectives: Private sector perspective



Use of radar data and type of applications



Access of radar data



Skill set for utilizing radar data



Required training or development

What is Verisk Weather Solutions?

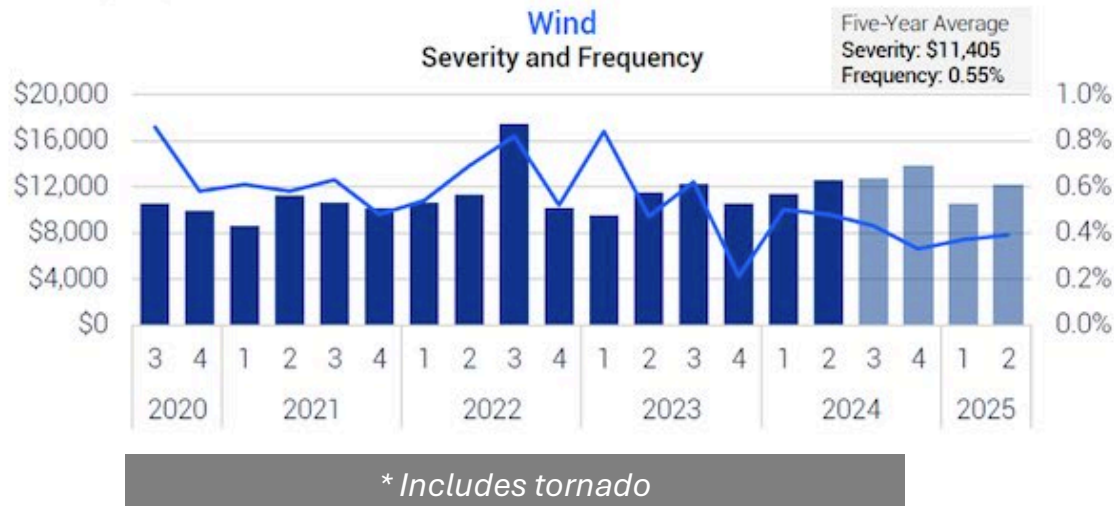


Verisk™

- Team within the Claims division of Verisk Analytics
- Primarily providing data and analytics to insurers and insurance-adjacent industry
- Provide near real-time product generation on impactful weather (within 15-min)
- Historical catalog of data
- Rely upon many types data, with a primary one being weather radar
- Develop in-house existing (e.g. hail size) and unique (e.g. hail impact energy) algorithms, as well as being a conduit for ancillary data with insurance relevance (e.g. earthquakes)

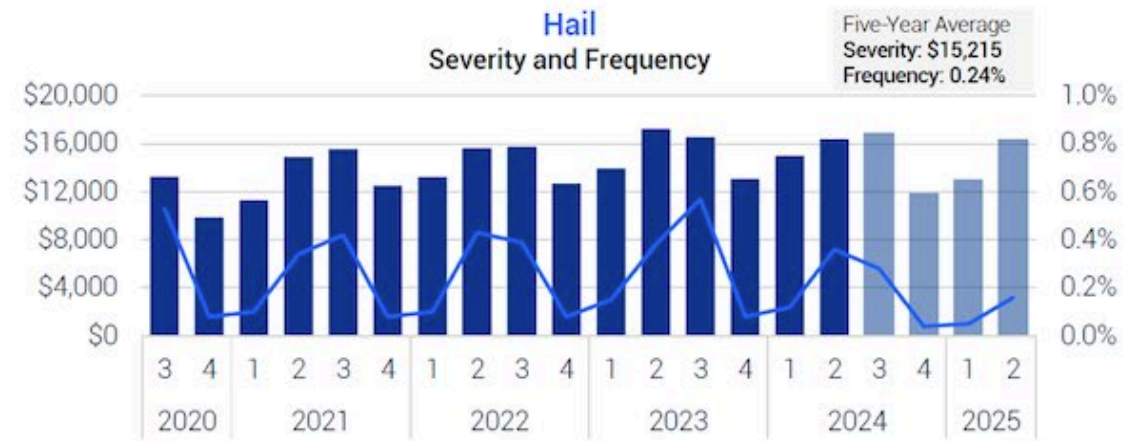
Non-Catastrophe Wind

- Severity was roughly 21% higher in the latest four quarters (\$12K) than in the first four quarters (\$10K) of the five-year period, likely driven by inflation.
- Frequency decreased 42% from 0.66% in the first four quarters to 0.38% in the last four quarters of the five-year period.
- Frequency was highest in MS (1.26%), DE (1.15%), and WV (1.03%) over the five-year period..



Non-Catastrophe Hail

- Severity was 20% higher in the latest four quarters (\$16K) than in the first four quarters (\$13K) of the five-year period, also likely due to inflation.
- Frequency decreased almost 50% from 0.26% in the first four quarters to 0.13% in the last four quarters of the five-year period.



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Hail and wind damage

Data provided by Verisk ISO

What are the data that we use?

Weather radar data

- NEXRAD and TDWR
- Research has been done on Canadian and European weather radar

Surface observations

Satellite

Weather model

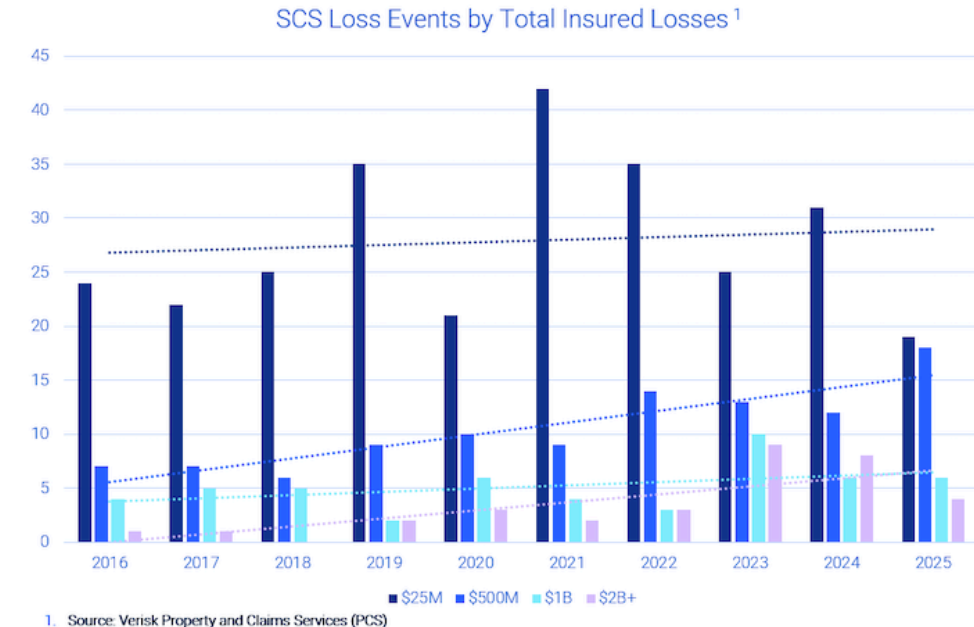
Storm Reports

Why use radar?

- Arguably the best detection of severe convective storms (SCSs)
- Centered around population (*i.e.* roofs)

Industry Loss Trends Severe Convective Storm

- Stronger trends exist when events are striated by total insured losses
- 2016-2018 saw
 - 6-7 \$500M events
 - 4-5 \$1B events
 - 0-1 \$2B events
- 2023-2025 saw
 - 12-18 \$500M events (2.3x increase)
 - 6-10 \$1B events (1.8x increase)
 - 4-9 \$2B events (10x increase)



Hail

- Internal Verisk research indicates 60-80% of SCS annual losses
- Exceeded \$50B in 2023 and 2024 (Verisk PCS)

2025 vs. 2024

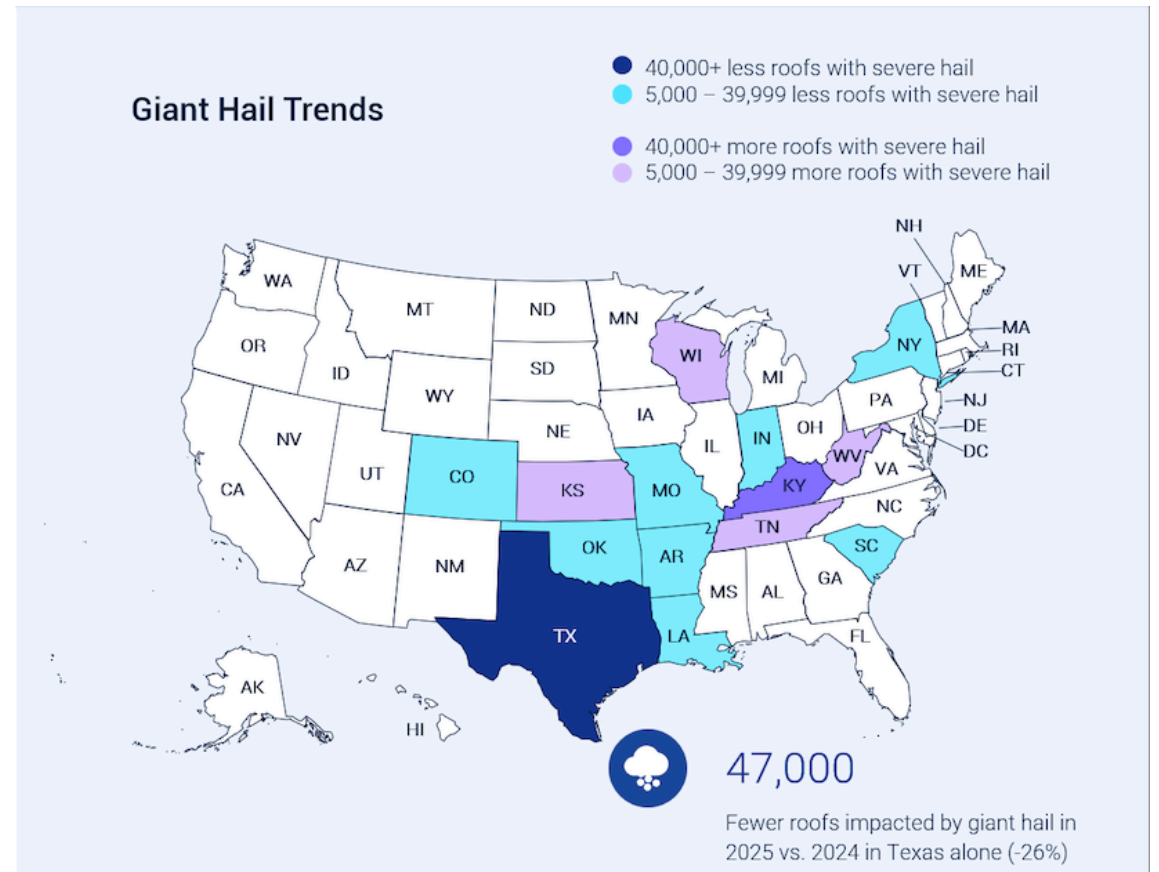
There were just over 1,000,000 more roofs impacted by severe hail in 2025

However, 14% lower hail claim volume in 2025 ¹

Driven by hail severity

- Large (1"-2") hail: **+7.0%**
- Giant (2"+) hail: **-11.3%**

¹ Source: XactAnalysis



Properly characterize hail fall



Carinna Bell
@carinna_rose121 · Follow

Soft ball sized hail in Wylie. Next to my 8lb cat.



4:20 PM · Apr 11, 2016



Gerry Johnson
@GerryJohnson9 · Follow



Large 'ball' marks on Coal Creek Golf Course in Louisville, CO #hail



7:54 PM · Jun 18, 2018



severe-weather.EU
@severeweatherEU · Follow



Simply BRUTAL hailstones near Wylie, Texas yesterday. Severe damage was reported. Photo: Mark Diaz

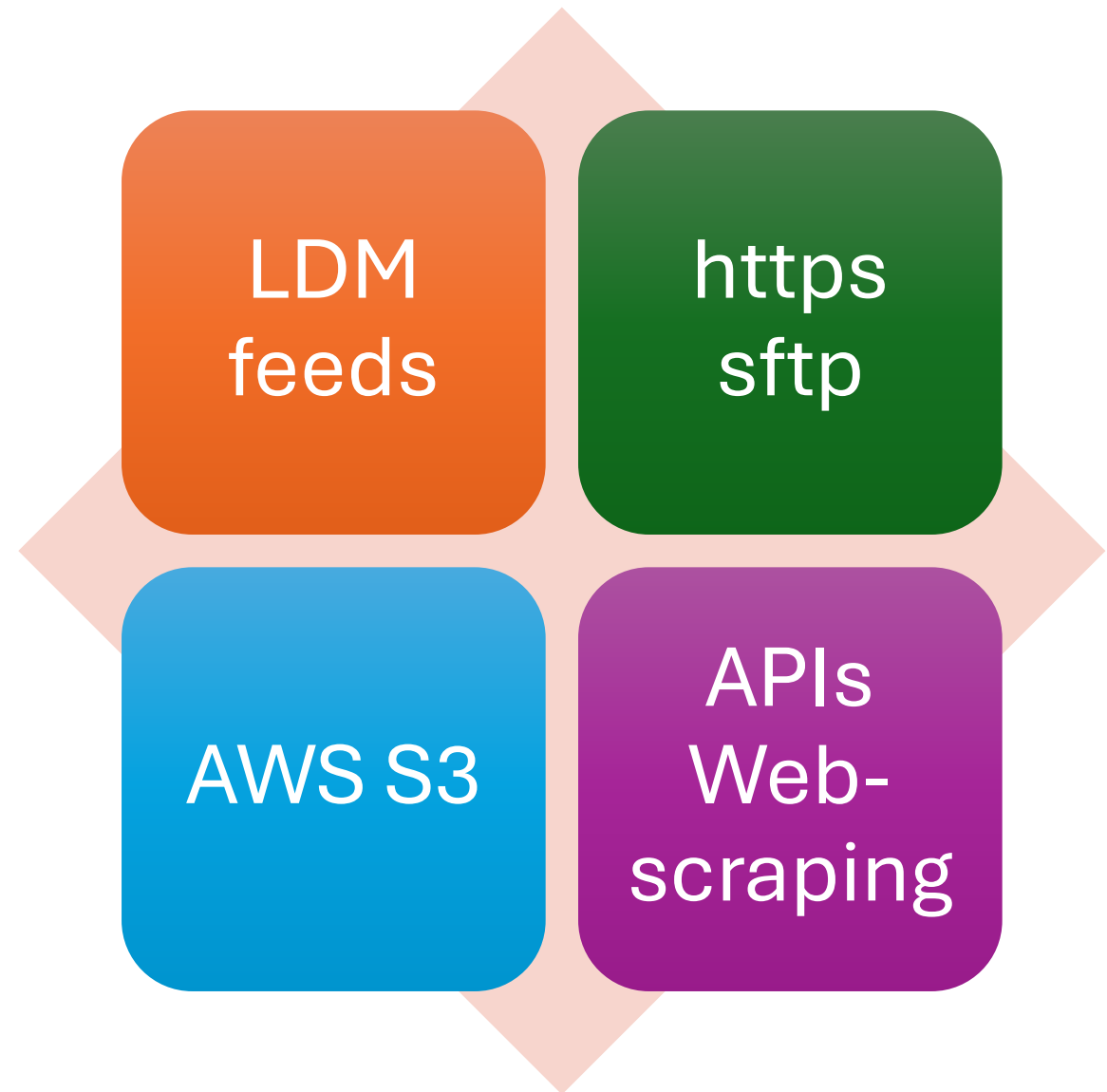


7:33 AM · Apr 12, 2016



Accessing radar
data

Public and
private



What we consider desirable skills



Analytical problem solving



Software and Programming



Analysis techniques (math!)



Knowledge of data formats and oddities

Our training philosophy

We tend to hire “generalists” – those who like problems

Experience with both observations and model building

Meet people where they are at – need a solid ground floor

Provide traditional radar education abbreviated

- Limited time so we focus on fundamentals and how this fits into what we do
- Learn by doing – lots of practicum
- Encourage ongoing training with relevancy

Perspectives & observations

Difficult to find someone with pure radar background

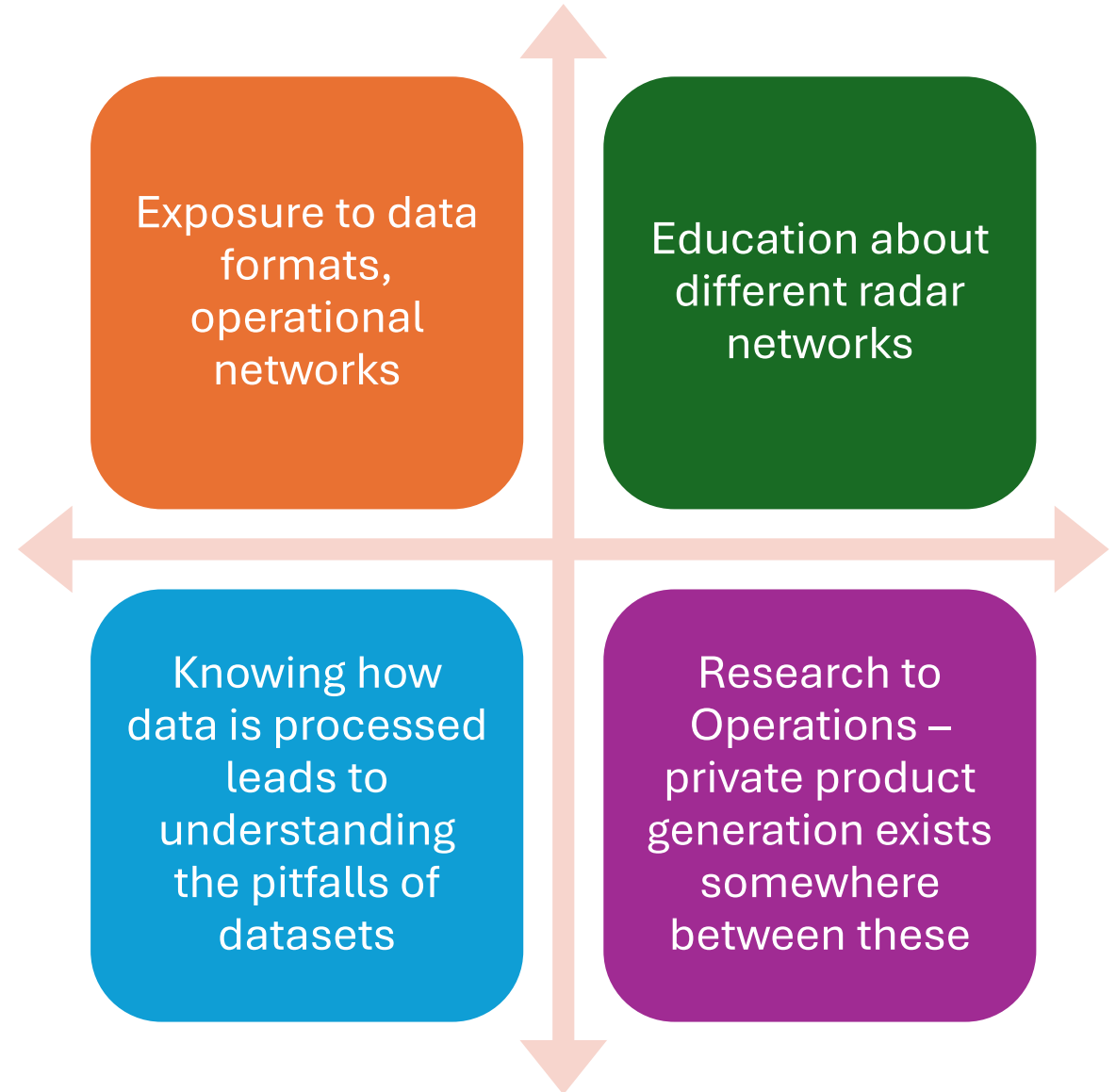
Lots of people interested in applications, though not much experience coming out of school

Inquisitive types succeed in research role

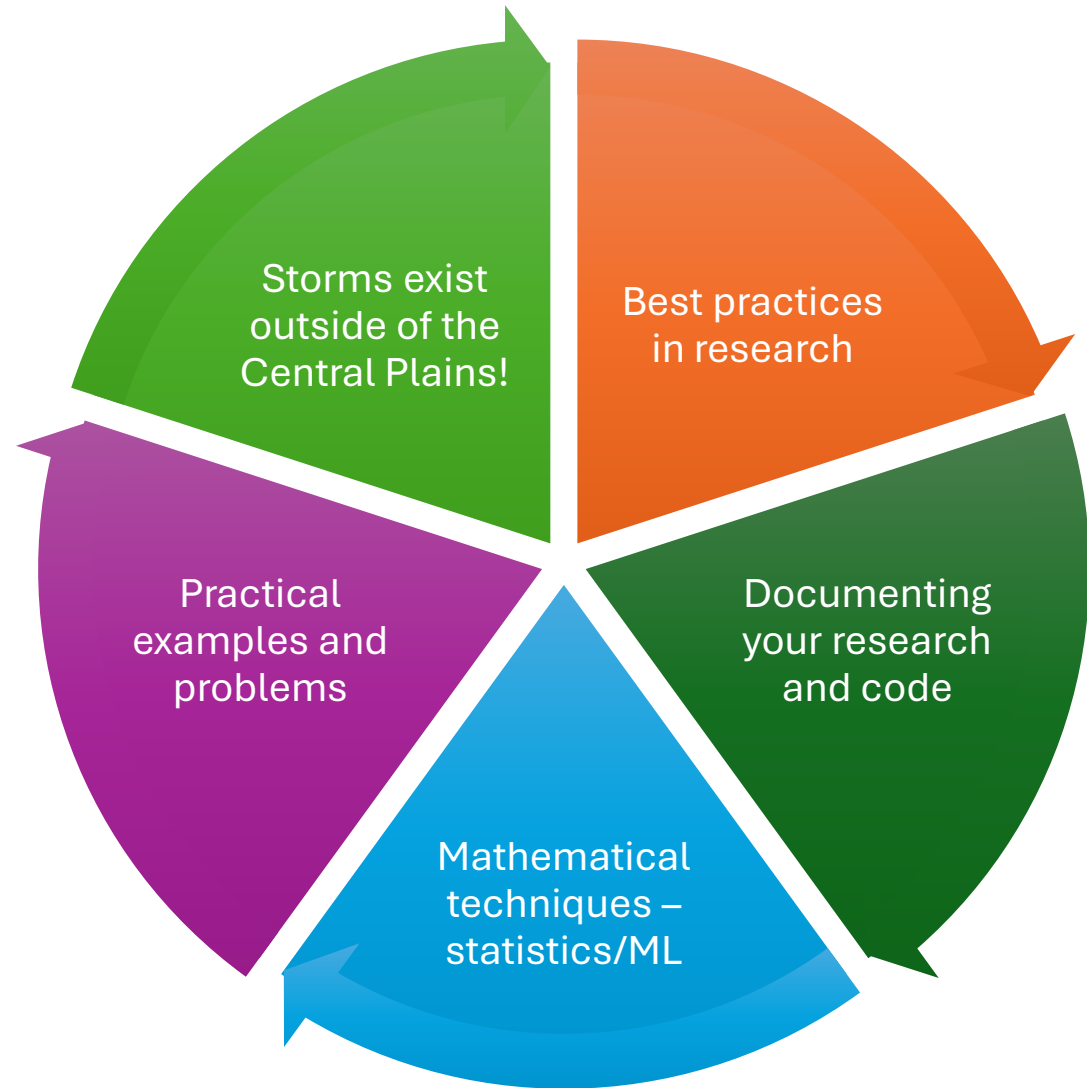
If coming from academia, research pace is generally accelerated

Understanding why tools work correlates with success

Student or individual preparation



What can we do to help train



Thanks for
listening!