



Brigham Young University
BYU ScholarsArchive

BYU Research Development Office Research
Networking Conference

BYU Research Development Office

8-2024

Uncertainty Quantification & Radical Interdisciplinarity

Douglas Cook

Brigham Young University, d.cook@byu.edu

Follow this and additional works at: <https://scholarsarchive.byu.edu/researchnetworking>

Recommended Citation

Cook, Douglas, "Uncertainty Quantification & Radical Interdisciplinarity" (2024). *BYU Research Development Office Research Networking Conference*. 359.

<https://scholarsarchive.byu.edu/researchnetworking/359>

This Book is brought to you for free and open access by the BYU Research Development Office at BYU ScholarsArchive. It has been accepted for inclusion in BYU Research Development Office Research Networking Conference by an authorized administrator of BYU ScholarsArchive. For more information, please contact ellen_amatangelo@byu.edu.



Research
Networking

Uncertainty Quantification & Radical Interdisciplinarity



Douglas Cook

Mechanical Engineering

d.cook@byu.edu

801-422-0193

Areas of Interest:

Limitations of scientific models

Sensitivity analyses

Theory-based and statistical modeling

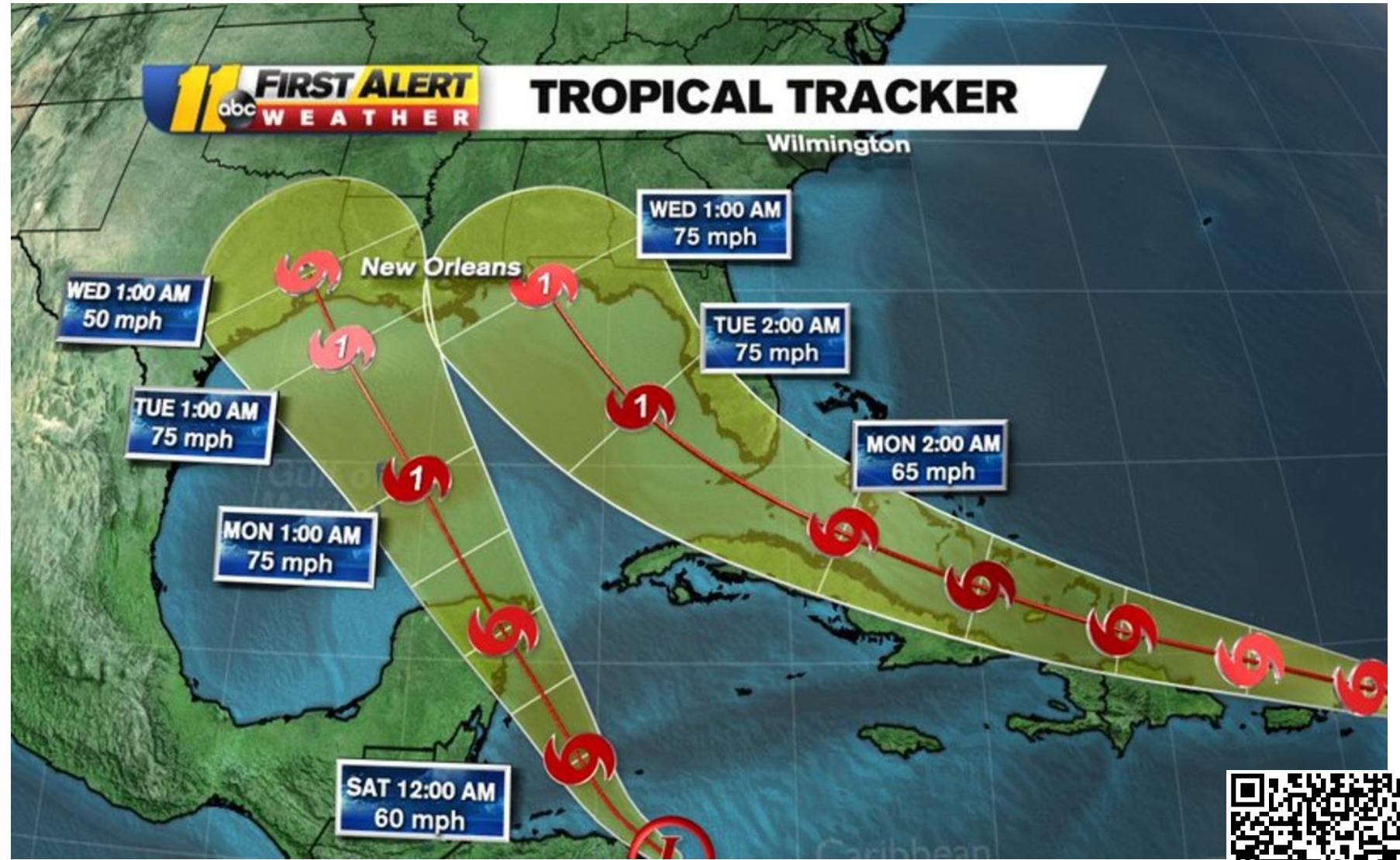
Systems thinking, systems analysis

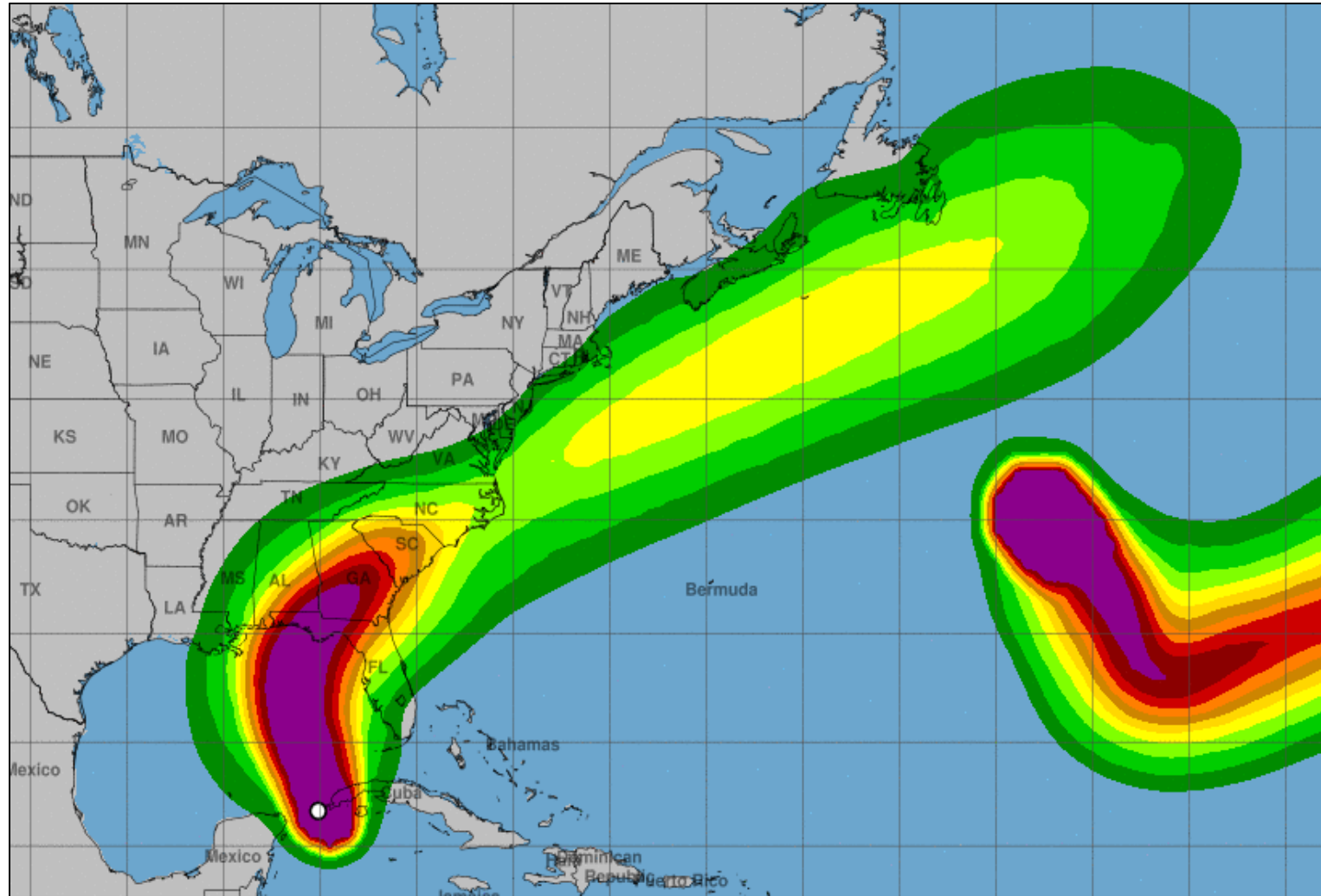
Send
an
email →



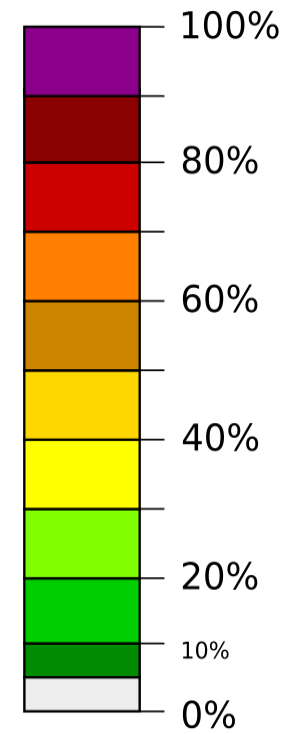
1. Radical Interdisciplinarity

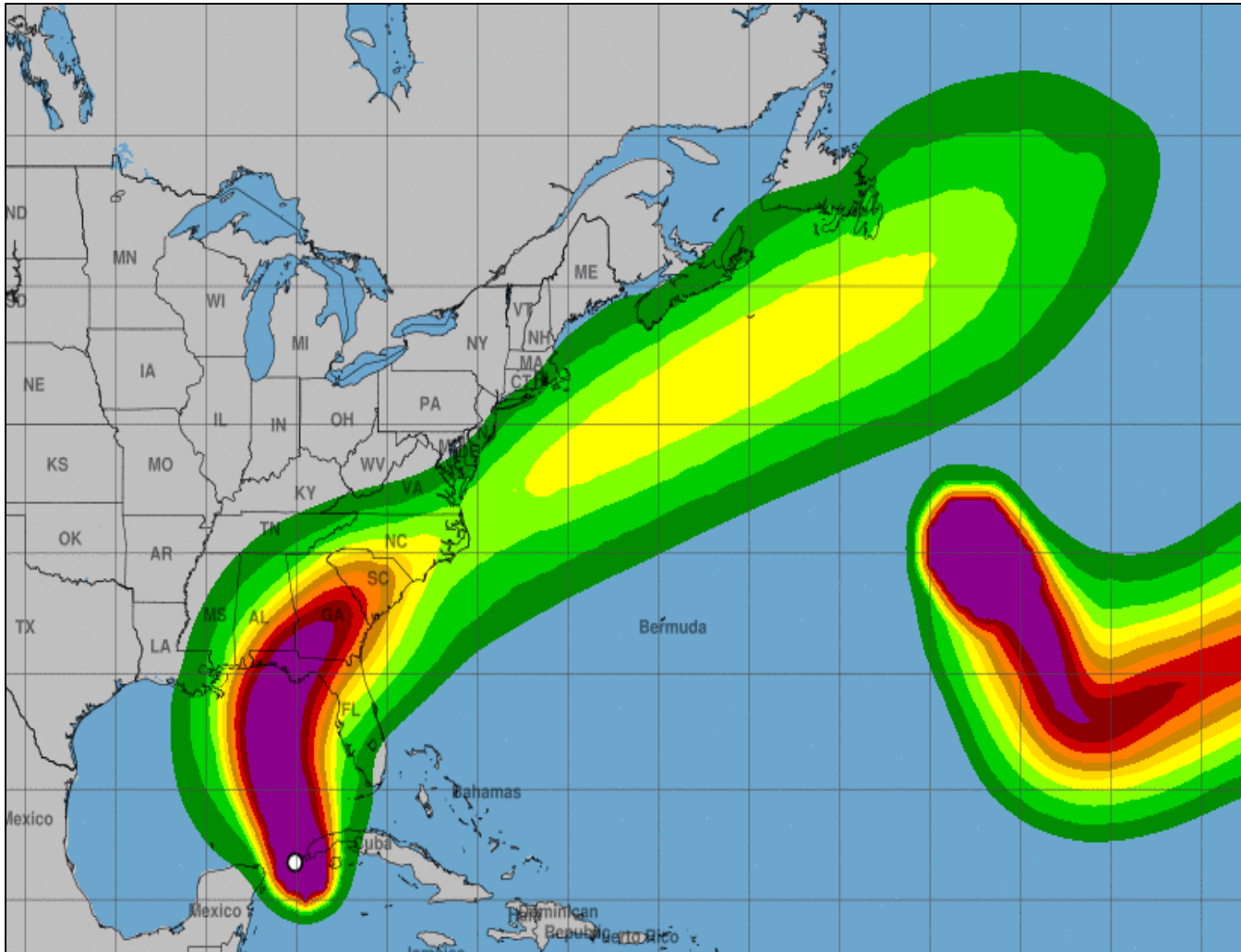
2. What is Uncertainty Quantification?





Probability of winds exceeding 40 mph





**Uncertainty quantification
has benefits anywhere a
computational model is
used:**

Biomechanics

Physics

Biology

Business

Chemistry

Economics

Engineering

Machine Learning & AI



Let's chat about collaboration possibilities!



Douglas Cook
Mechanical Engineering
d.cook@byu.edu
801-422-0193

Areas of Interest:

Uncertainty quantification
Sensitivity analyses
Theory-based and statistical modeling
Systems thinking, systems analysis
Radical interdisciplinarity

Send
an
email →



Graduate Course
this Winter:

ME EN 577:
Uncertainty
Quantification