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Forecasting the Future- Takeaways from the 2024 Annual

Conference

The transition from deterministic to probabilistic forecasting represents a shift in the way meteorologists, emergency managers, and other stakeholders make decisions regarding disasters. Deterministic forecasts provide one outcome, often failing to account for atmospheric uncertainties. In contrast, probabilistic forecasts account for multiple scenarios. This approach reflects uncertainty in complex systems in the atmosphere and allows for improved decision making and preparedness. This presentation will explore the shift in forecasts and use the knowledge to explore why it is helping emergency management. It will also discuss the advantages, and disadvantages, to a new approach using information from a presentation from the 2024 Annual Conference, A 50% Chance of a Good Session-Understanding Probabilistic Information for Weather Decisions By: K. Deitsch, M. Gordon, and G. Heavener, as well as other sources. Embracing the switch to probabilistic forecasting can help ensure that the meteorology and emergency management communities have better tools in their pockets to help communities affected by disasters.

Presentation Theme: The theme is why the move from deterministic forecasting to probabilistic forecasting is a positive one and how it's

benefiting the emergency management community. It also will include takeaways from the Annual Conference 2024.

Collaborators, Advisor(s) and Department(s) that assisted with this research:Dr. Duane Hagelgans, Millersville University Center for Disaster Research and Education, Department of Earth Sciences, Millersville University.