Uncertainty in Quantitative Precipitation Forecasts (QPF) and its Impact on River Forecasts

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Quantitative Precipitation Forecasts (QPF) are produced at least daily at River Forecast Centers across the nation and are a crucial part of the hydrometeorological forcings for hydrologic forecasts. Forecasting the exact location, timing and quantity of rainfall across a given river basin is extremely challenging and are major contributors to the uncertainty in the hydrologic forecasting process. This presentation will examine this uncertainty, its impact on hydrologic forecasts, and a new experimental forecast approach developed by the Northeast, Ohio and Mid Atlantic River Forecast Centers. This experimental forecast approach quantifies this uncertainty by infusing ensemble numerical weather prediction forcings into the hydrologic forecast process.