

Risk Management Solutions has opened a full time position for a **hydrologist / flood modeler**.

For any further information you can contact Stefano Zanardo (stefano.zanardo@rms.com).

The objective of the Flood Modeler:

The Flood team focuses on developing high-resolution, large-scale flood models which are used to assess flood risk. The modeling work carried out by the flood team encompasses all steps from hazard modeling to loss modeling. The department has an engaged, collaborative working environment within clear scientific, motivated and technological culture.

Key Accountabilities & Deliverables:

- Further develop the flood model components (e.g., large scale modeling of stochastic rainfall processes, rainfall-runoff processes, inundation, and defense failure mechanisms) and to seek for scientific and technological improvements;
- Quality-check the results (e.g., calibration results);
- Evaluate final model output (e.g., flood footprints, flood losses and their spatial patterns using statistical and GIS tools);
- Further advancement of hydrological and hydraulic modules by researching and implementing novel scientific techniques (e.g. advancing the stochastic modules and peril modules that are at the center of the flood model);
- Perform research into consistency between observed and modeled spatial patterns, seasonality of floods, flood magnitudes).

Experience Required:

- Advanced degree in Hydrology, Hydraulics, Meteorology, Coastal and Ocean Engineering, Applied Mathematics or a related discipline;
- Must have a strong analytical mindset combined with strong programming skills (Fortran, Python, R, C/C++, Java, bash/csh);
- Experience with model development, usage of GPUs for large compute jobs, data-assimilation and/or forecasting environments, GIS tools (e.g., GRASS), SQL, and a strong publication record are considered an advantage.
- Strong knowledge of statistics and probability theory is a plus
- Experience with coastal circulation, storm surge or tsunami modeling is a plus
- Prior experience of working on large data sets in a Linux/Unix environment;
- Ability to work as part of a team.