

Wind Driven Rain

While it's easy to identify areas exposed to rain in calm weather, it's a tricky task in windy conditions. The drops are then carried towards the vertical façades or can penetrate far inside buildings through their openings. It can be important to anticipate which areas need to be protected from the elements, which floors need to be waterproofed or treated, and which areas need to be protected from the wind, waterproofed or treated to prevent slippage.

L'hypercube refers to AREP's internal research and scientific support workshop, specializing in the modeling of complex physical phenomena.

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Our Expertise

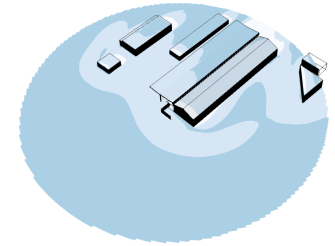
We offer **numerical simulations in which the droplet motion is directly modelled**. Using weather data representative of local situations, our experts develop **realistic climatic scenarios** of simultaneous rain and wind. The levels of exposure to rain on façades and floors are calculated according to the specific features of the environment and the needs of the project.

Our Services

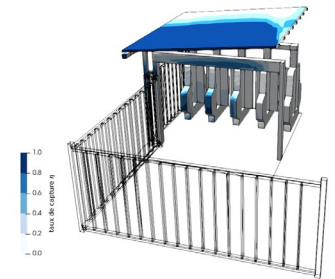
Analysis of the impact of adverse weather conditions on infrastructures :

- Computation and mapping of the catching ratios,
- Assessment of exposure levels of façades and equipment (dirt, infiltration, mold, etc.),

Assistance with the design of structures intended for the protection of people and/or equipment.



Meaux train station
Catching ratio at the project scale



Meaux train station
Catching ratio in the platforms access control's vicinity