

Figure 2: Schematic view of the approach adapted to derive the regional Probability of Flow Intermittence (*PFI*) from ONDE sites using daily flows either gauged or modelled within a given HER2. The daily flows simulated by Explore2 at three simulation points generate flow time series (column 1) and their corresponding non-exceedance curves (column 2). A logistic regression is then used to link daily flows to ONDE observations (column 3), as illustrated here for the campaign of September 25, 2012. For this campaign, daily discharge values simulated between September 18 and September 25, 2012, are extracted for each simulation point whose drainage area intersects the HER2. These seven flow values are matched to their respective exceedance probabilities using the non-exceedance curve. The mean exceedance probability across all simulation points is then associated with the proportion of ONDE sites exhibiting "dry conditions" during this campaign (observed *PFI*). The logistic regression is calibrated using data from all ONDE campaigns. Once calibrated, these models allow for the conversion of daily discharge time series into daily PFI time series for the HER2 (column 4).