

UNIVERSITY OF BOLOGNA
Lectures of Sustainable design of Water Resources systems

Exercise - Peak river flow estimation for the Po River at Pontelagoscuro

Students are required to estimate the peak river flow for the Po River at Pontelagoscuro, by applying the annual maxima method by fitting the data with the Gumbel distribution. Let us assume that the peak river flow is equal to the daily average flow. Daily data for the Po River at Pontelagoscuro are available at <http://distart119.ing.unibo.it/albertonew/sites/default/files/didattica/data/po-pontelagoscuro.zip>

Students are first of all required to draw the probability density for the whole time series. A graph of the progress of the estimated peak flow for increasing return period is also required.