An automatic method for choosing window width in the kernel density estimation

The work is concerned with density estimation, which deals with the construction of an estimate of the function from observed data. We obtained kernel method for the unwarranted data under which we discussed the measure of discrepancy, bias, variance, the optimal widow width (hopt) of various higher derivatives (i.e. hopt (2), hopt (4, hopt (6), hopt (8) and their corresponding risk function(MISE). Here we are proposing a method in the choosing of the window width called the Automatic method in place of the subjective choice.