1 average

1. Collect all data points fron different records into one linear array (x,y,error).
2. Sort that array to increasing error.
3. Start with the (still left *not used*) lowest error entry and look for all other points within a x-distance given by *xcatch* (relative to x or absolute) (index *j*).
4. collect the information to create a new average point (index *i*) using error-weighting:
   $w_i = [\sum_j 1/y_{err}^2]$
   $x_i = [(1/w_i) \sum_j x_i/y_{err}^2]$
   $y_i = (1/w_i)[\sum_j y_i/y_{err}^2]$
   $y_{err,i} = \sqrt{1/w_i}$.
5. flag the selected initial and the selected *neighbouring* points as *used*.
6. Iterate by returning to point 3 until all points are used.
7. Finally sort result array according to x.

The collection range is controled by the value of *xcatch* and the options *absolute* or *relative* (=default).

For NSE type or other relaxation function type data normally *relative* is the approriate choice, *xcatch* may tyically be between 0.05 and 0.5.