

Function Normalization

The concept of *normalization* comes into play when we have to deal with *unbinned maximum likelihood* fits. To build the likelihood it is infact necessary to provide the probability for a given set of data points to occur. Such probability distribution must be greater than zero and it has to integrate to one over the range of interest.

In AIDA this is accounted for in the [IModelFunction](#) interface; it infact provides methods to normalize the function and to specify the normalization range of the function.

Users [defining new functions](#) with the intent of using them in unbinned fits should be aware that the numerical evaluation of the function's normalization will play a major role in the speed of the fit. It is thus recommended that in their implementation they provide, if possible, the analytical function's normalization by overriding the appropriate methods.