

# negative event weights

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- `sPlot` is a popular ( $\sim 650$  citations) tool (at least in BaBar and LHCb) to assign per-event weights to candidates to disentangle signal from background
- useful e.g. for `fitting`
- can in principle be used to train ML classifiers on data without creating a pure background and a pure signal sample (lots of fine print skipped here)
- e.g. among NeuroBayes users an appreciated feature that `sPlot` weights are supported

## this should be an FAQ

- In my experience it's a reoccurring question on statistics mailing lists, if some ML tool supports `sPlot` weights, and one then gets many answers, each covering only one tool / one method of one tool / one setting of one method of one tool
- ...and to make things worse, people report from memory, which may not be up to date with the latest version of tools anymore

## what I want to get done

work towards a somewhat comprehensive overview table of which tools support sWeights and which don't.

slides (excl. cern logo) will appear on



<https://gitlab.cern.ch/pseyfert/slides-negativeweights-2017-02-28>