Supplementary Figures: Quality control for the target decoy approach for peptide identification

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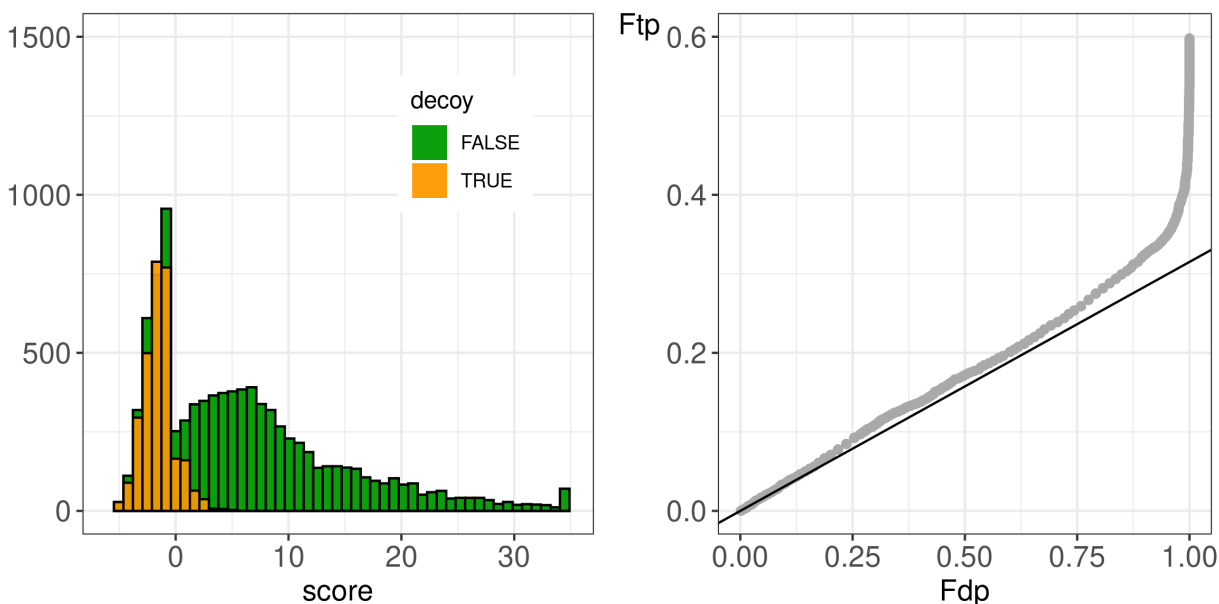[4] Corresponding Author: lieven.clement@ugent.be

Figure 1: Histogram and PP-plot for a concatenated search on a *Pyrococcus* run against a database of canonical *P. furiosus* sequences from Swiss-Prot using X!Tandem without refinement. Both the histogram and the P-P plot show no violation of the TDA assumptions.
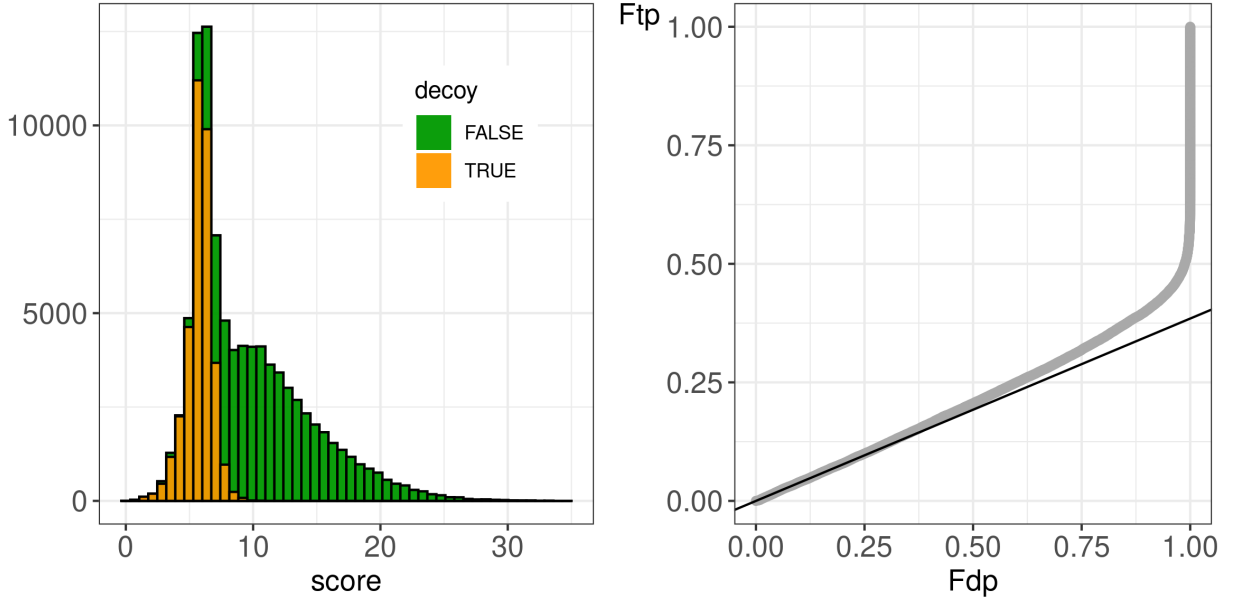
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Figure 2: Histogram and PP-plot for a concatenated search on a *H. sapiens* run against a database of *H. Sapiens* sequences from UniProt using MS-GF+. Both the histogram and the P-P plot show no violation of the TDA assumptions.
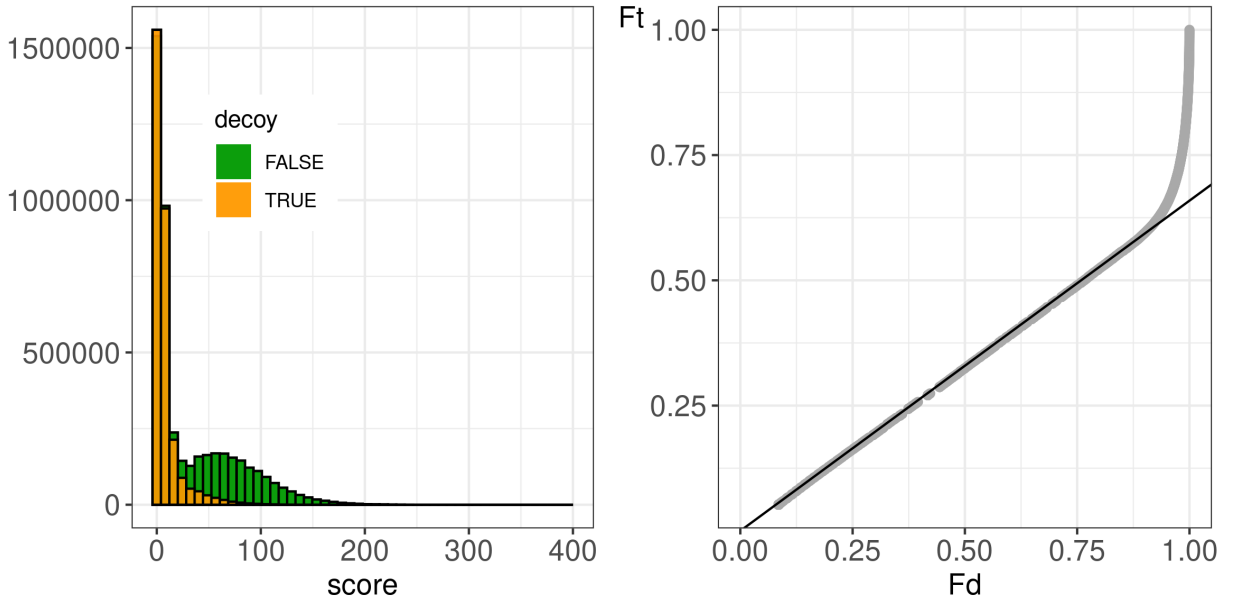

Figure 3: Histogram and PP-plot for a concatenated search on an immunopeptidomics run using Andromeda. Both the histogram and the P-P plot show no violation of the TDA assumptions.
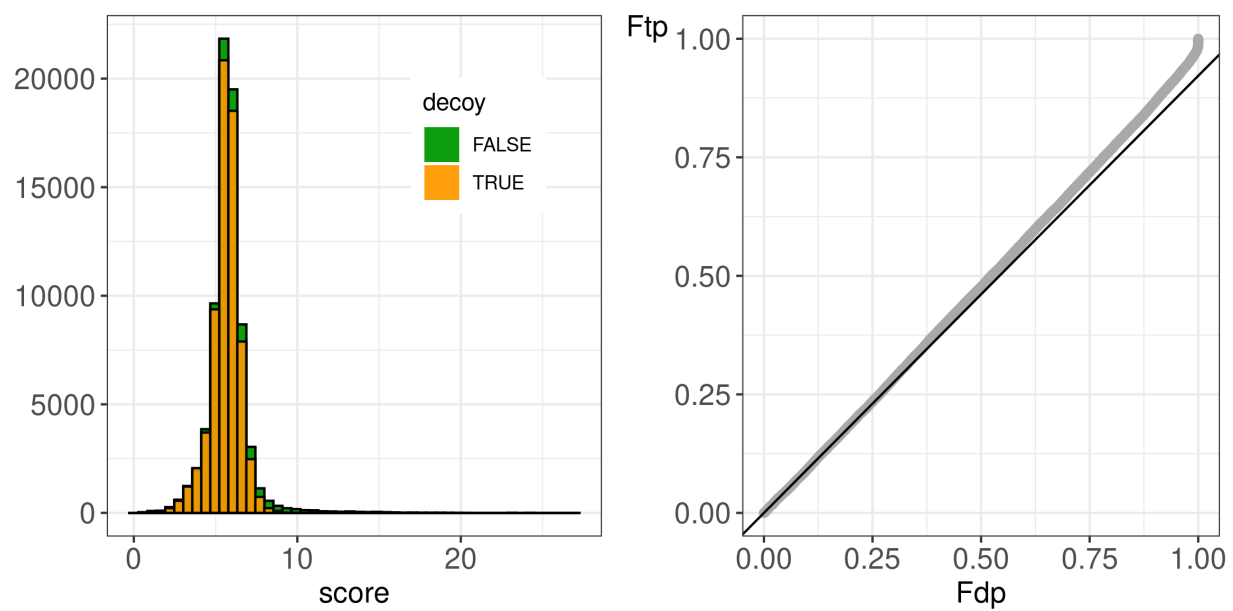
Figure 4: Histogram and PP-plot for rank 2 target and decoy PSM scores of a concatenated search on a H. sapiens run against a database of H. Sapiens sequences from UniProt using MS-GF+.