# Correlation Matrix (background)

Linear correlation coefficients in %

| | DTF Fit chi2 | $B_s$ ln(IP $\chi^2$) | ln(1 - $B_s$ DIRA) | $X_s$ daughters min ln(IP$\chi^2$) | $X_s$ cone $p_t$ asy | $X_s$ max DOCA | $D_s$ daughters min ln(IP$\chi^2$) | $D_s$ cone $p_t$ asy | $D_s$ FD significance | $D_s$ RFD | cos(max[$\theta_{Ds\ h}$]) | max(ghostProb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| max(ghostProb) | 1 | 6 | 2 | -3 | -15 | 5 | -4 | -15 | | | -1 | 100 |
| cos(max[$\theta_{Ds\ h}$]) | 16 | -6 | -23 | 31 | 32 | -44 | 2 | -12 | -18 | 24 | 100 | -1 |
| $D_s$ RFD | | -1 | -42 | 39 | 10 | -10 | 56 | 24 | 45 | 100 | 24 | |
| $D_s$ FD significance | -15 | -1 | 8 | -9 | -23 | 20 | 35 | 22 | 100 | 45 | -18 | |
| $D_s$ cone $p_t$ asy | -26 | -11 | -11 | 4 | 24 | 16 | 25 | 100 | 22 | 24 | -12 | -15 |
| $D_s$ min ln(IP$\chi^2$) | -13 | -5 | -25 | 23 | 7 | | 100 | 25 | 35 | 56 | 2 | -4 |
| $X_s$ max DOCA | -1 | 4 | 18 | -42 | -32 | 100 | | 16 | 20 | -10 | -44 | 5 |
| $X_s$ cone $p_t$ asy | 5 | -9 | -18 | 27 | 100 | -32 | 7 | 24 | -23 | 10 | 32 | -15 |
| $X_s$ min ln(IP$\chi^2$) | 1 | -4 | -42 | 100 | 27 | -42 | 23 | 4 | -9 | 39 | 31 | -3 |
| ln(1 - $B_s$ DIRA) | 20 | 63 | 100 | -42 | -18 | 18 | -25 | -11 | 8 | -42 | -23 | 2 |
| $B_s$ ln(IP $\chi^2$) | 34 | 100 | 63 | -4 | -9 | 4 | -5 | -11 | -1 | -1 | -6 | 6 |
| DTF Fit chi2 | 100 | 34 | 20 | 1 | 5 | -1 | -13 | -26 | -15 | | 16 | 1 |

100 80 60 40 20 0 -20 -40 -60 -80 -100