

$$\text{Time Resolution: } \begin{bmatrix} 1 & 0 & 0 \\ 1 & 0 & 1 \\ 0 & 1 & 1 \end{bmatrix} \begin{bmatrix} \sigma^2(RPC) \\ \sigma^2(SC1) \\ \sigma^2(SC2) \end{bmatrix} = \begin{bmatrix} \sigma^2(\Delta(RPC, SC1)) \\ \sigma^2(\Delta(RPC, SC2)) \\ \sigma^2(\Delta(SC1, SC2)) \end{bmatrix}$$

HV ON → Sem Slewing Correction

$$\begin{bmatrix} 1 & 1 & 0 \\ 1 & 0 & 1 \\ 0 & 1 & 1 \end{bmatrix} \begin{bmatrix} \sigma^2(RPC) \\ \sigma^2(SC1) \\ \sigma^2(SC2) \end{bmatrix} = \begin{bmatrix} 152^2 \\ 182^2 \\ 202^2 \end{bmatrix}$$

$$\begin{aligned} \sigma^2(RPC) &= 87.8180^2 \\ \sigma^2(SC1) &= 124.0645^2 \\ \sigma^2(SC2) &= 159.4114 \end{aligned}$$

HV ON → Com Slewing Correction

$$\begin{bmatrix} 1 & 1 & 0 \\ 1 & 0 & 1 \\ 0 & 1 & 1 \end{bmatrix} \begin{bmatrix} \sigma^2(RPC) \\ \sigma^2(SC1) \\ \sigma^2(SC2) \end{bmatrix} = \begin{bmatrix} 118^2 \\ 170^2 \\ 176^2 \end{bmatrix}$$

$$\begin{aligned} \sigma^2(RPC) &= 76.9675^2 \\ \sigma^2(SC1) &= 89.4427^2 \\ \sigma^2(SC2) &= 151.5784^2 \end{aligned}$$

HV_{top} OFF → Sem Slewing Correction

$$\begin{bmatrix} 1 & 1 & 0 \\ 1 & 0 & 1 \\ 0 & 1 & 1 \end{bmatrix} \begin{bmatrix} \sigma^2(RPC) \\ \sigma^2(SC1) \\ \sigma^2(SC2) \end{bmatrix} = \begin{bmatrix} 121^2 \\ 197^2 \\ 201^2 \end{bmatrix}$$

$$\begin{aligned} \sigma^2(RPC) &= 80.7744^2 \\ \sigma^2(SC1) &= 90.0916^2 \\ \sigma^2(SC2) &= 179.6789^2 \end{aligned}$$

HV_{top} OFF → Com Slewing Correction

$$\begin{bmatrix} 1 & 1 & 0 \\ 1 & 0 & 1 \\ 0 & 1 & 1 \end{bmatrix} \begin{bmatrix} \sigma^2(RPC) \\ \sigma^2(SC1) \\ \sigma^2(SC2) \end{bmatrix} = \begin{bmatrix} 111^2 \\ 180^2 \\ 180^2 \end{bmatrix}$$

$$\begin{aligned} \sigma^2(RPC) &= 78.4889^2 \\ \sigma^2(SC1) &= 78.4889^2 \\ \sigma^2(SC2) &= 161.9861^2 \end{aligned}$$

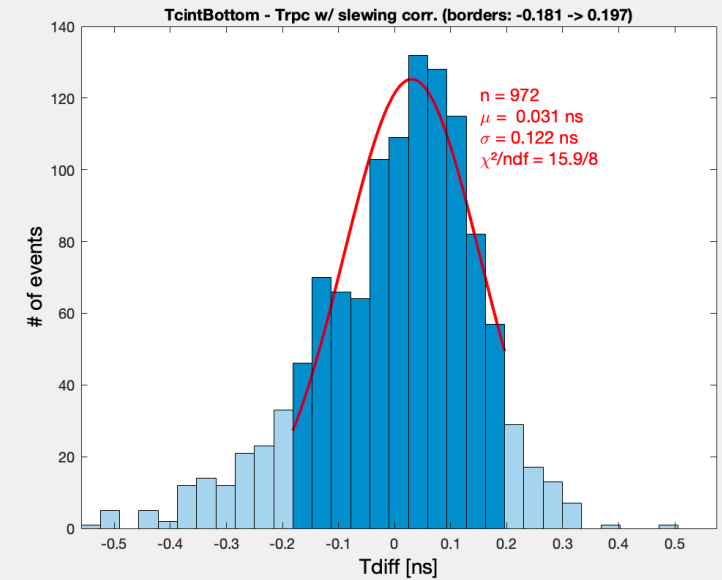
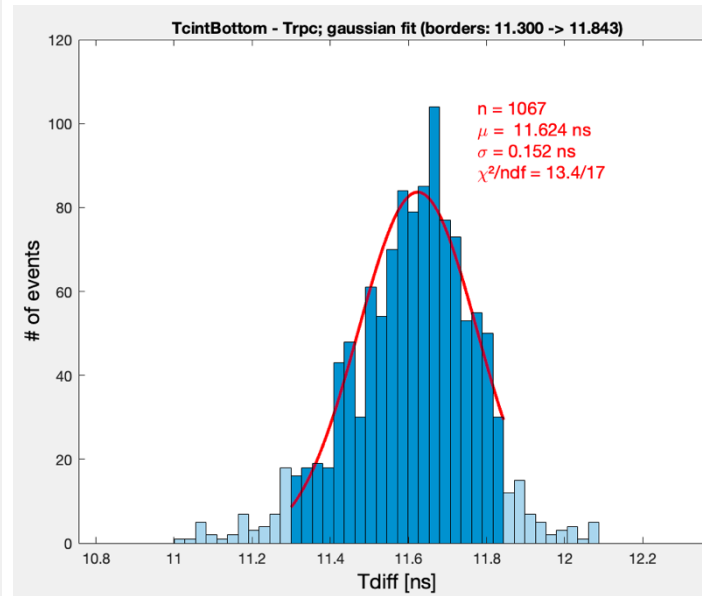
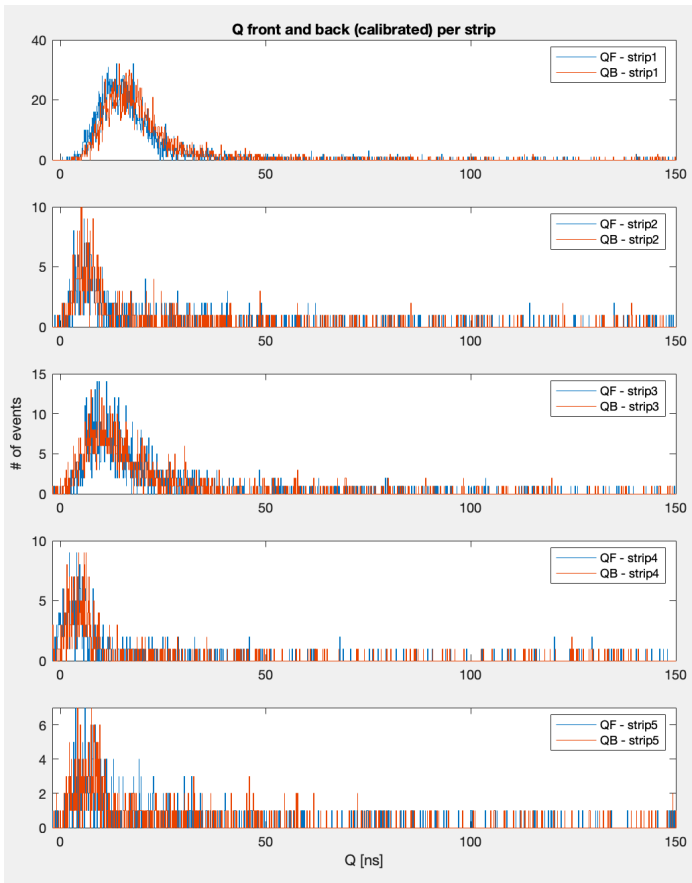
HV – ON

Efficiency = 97.7954%

$\text{Eff} = \text{numberSeenEvents} * 100 / \text{numberGoodEvents};$

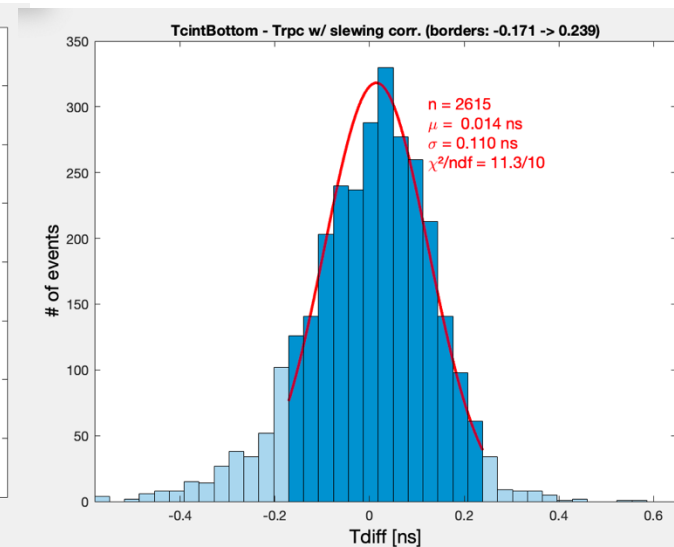
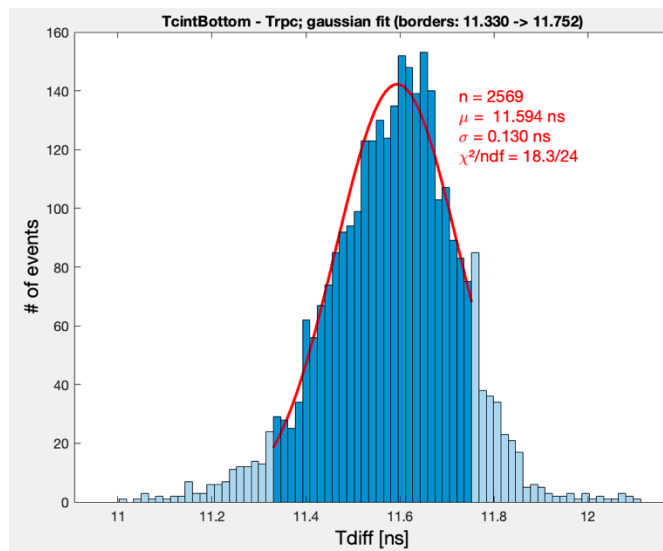
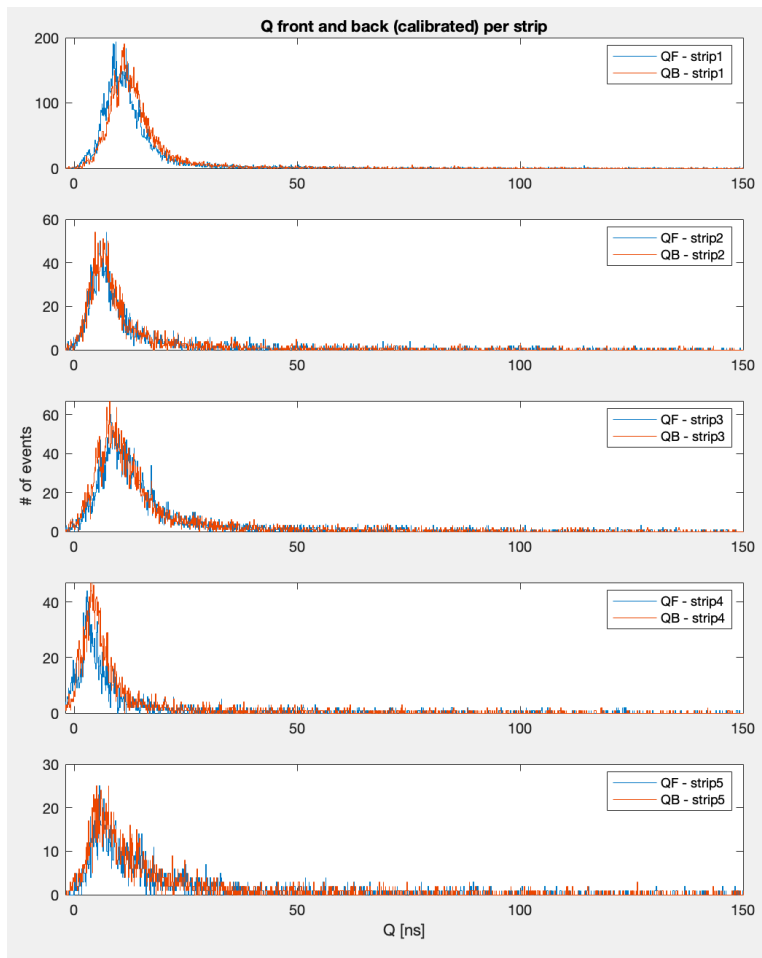
numberGoodEvents: número de eventos **bons**, ou seja, com tempos válidos nos 4 cintiladores.

numberSeenEvents: quantos desses eventos bons também foram **vistos pela RPC**

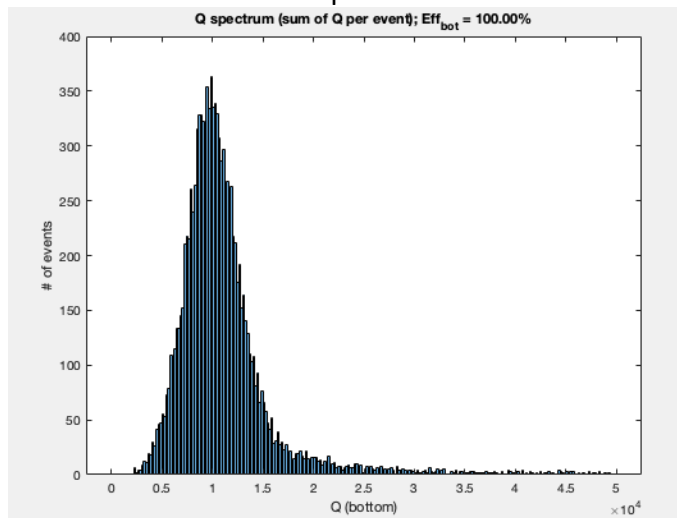


HV_{top} OFF

Efficiency = 75.9053%



Todos os eventos nas strips finas de baixo



Análise dos eventos rejeitados, ou seja, resposta nas strips finas aos eventos rejeitados nas gordas. Não parece haver nenhum problema.

