

## 1) Build event-pair table

**dt.ct**

(event-pair provided by ph2dt)

IF pick available

Yes

No

**hypoDD.pha**  
(travel-time)

Practical travel-time

**event.sel**  
(event information)

**station.sel**  
(station information)

**ttddb.txt**  
(travel-time table)

Theoretical travel-time

**Event-pair table**

(including travel-time of common station)

## 2) Build waveform database

**P wave**

wb

wa

Z component

N component

E component

**S wave**

wbs

was

IF  $wa > 0.9 \cdot (S-P)/wbs > 0.5 \cdot (S-P)$

Yes ->

$wa = 0.9 \cdot (S-P)/wbs = 0.5 \cdot (S-P)$

No -> pass

**Waveform database**

## 3) Build dt.cc

**Preprocess**

1 -> rmean

2 -> taper

3 -> filter

IF SNR > threshold  
(e.g., 5)

Yes -> keep

No -> remove

**Cross-correlation (CC)**

IF CC value > threshold  
(e.g., 0.7)

Yes -> keep

No -> remove

**Output dt.cc**

**FDTCC**