

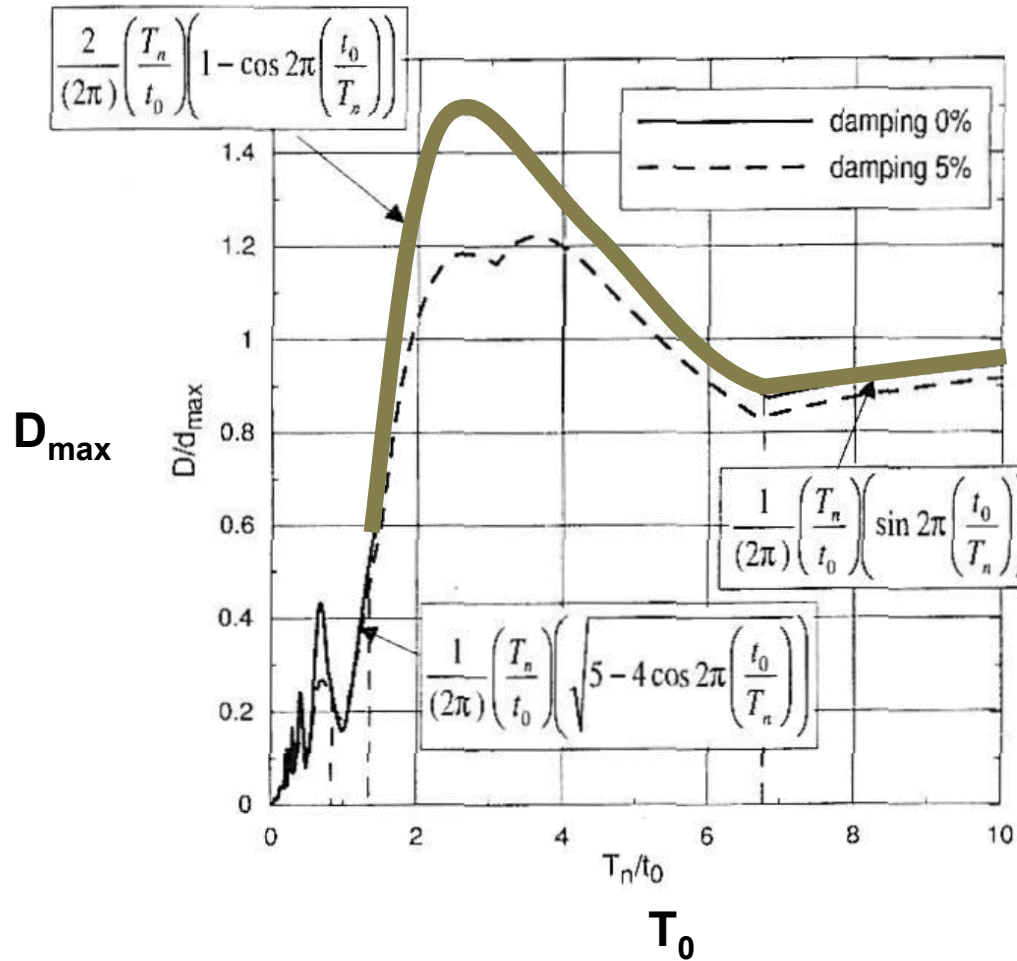
**DPC – S5 / UR2**

**Near field effects on SRS  
(task 3)**

# Deliverables a 6 mesi (Task3)

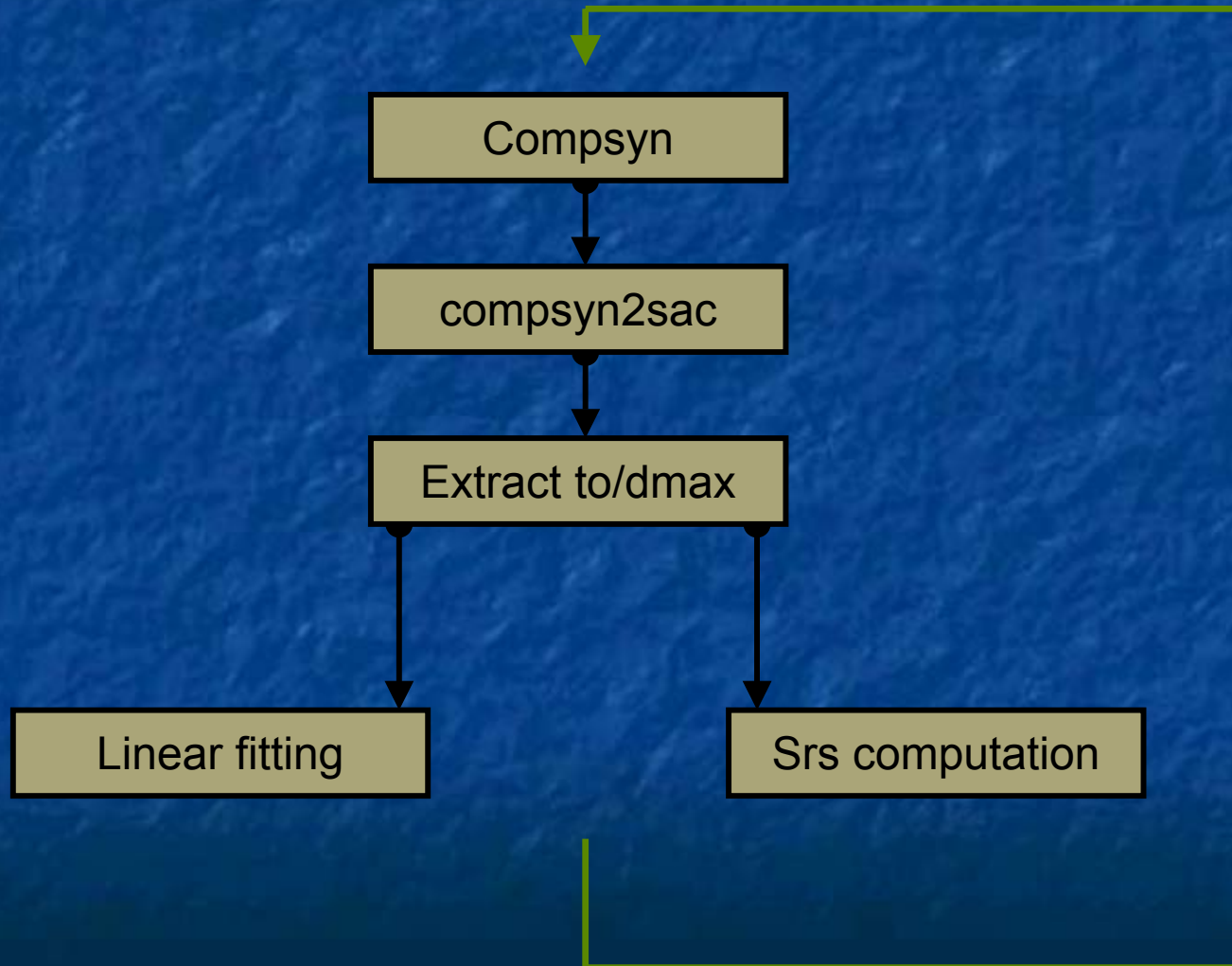
D11

Formulazione quantitativa preliminare (di limite superiore), applicabile a relazioni di attenuazione, di modifiche a SRS per direttività in funzione di  $T$  e  $M$ ;

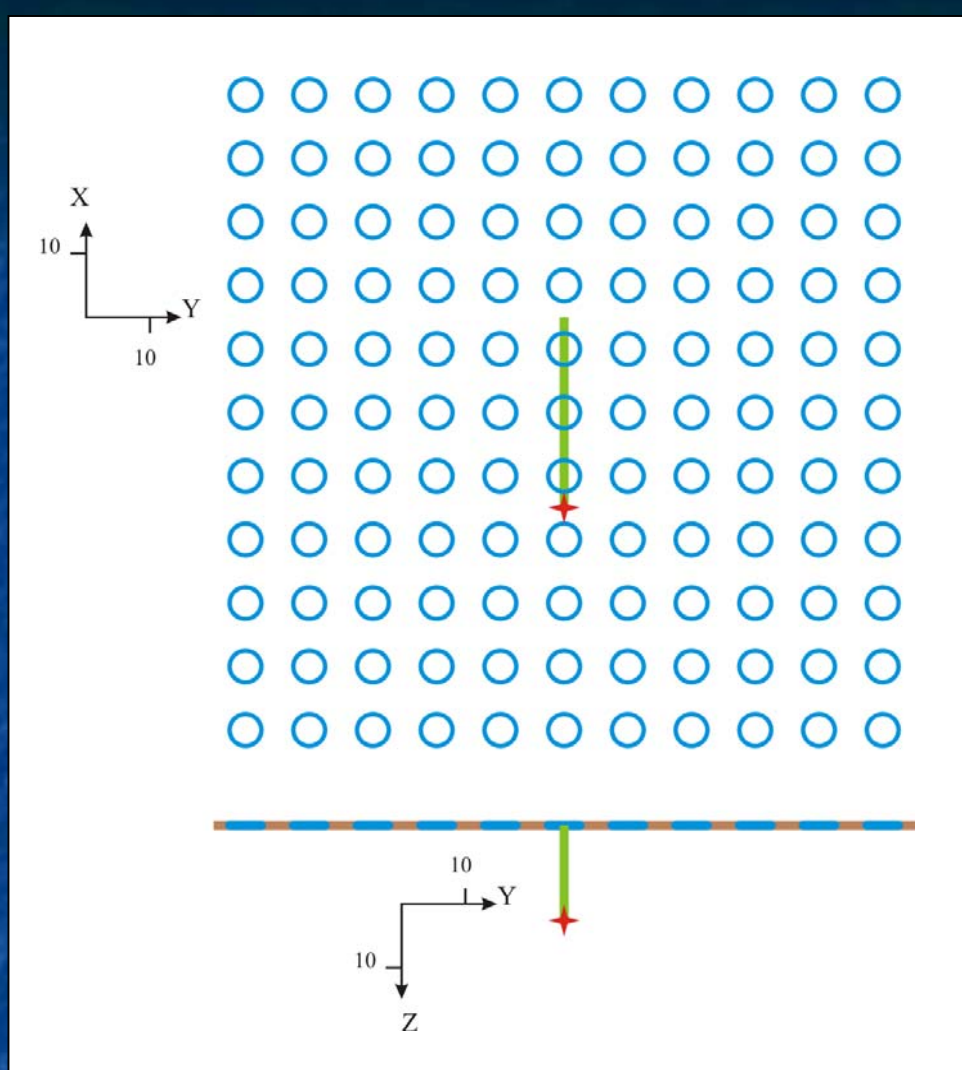


## Reference Displacement Response Spectrum

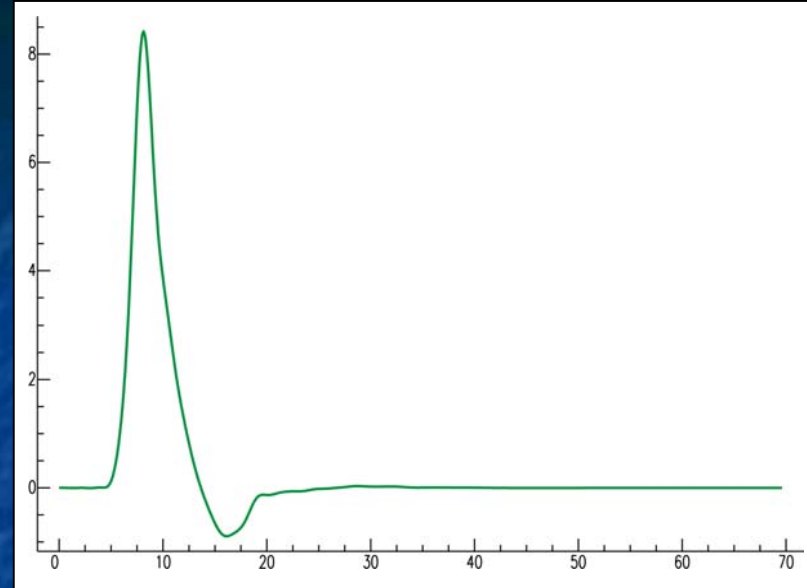
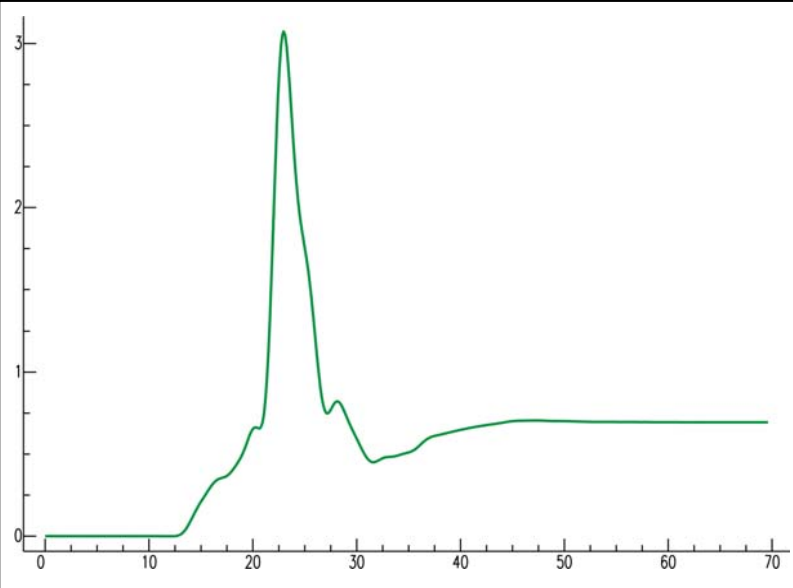
# Flow chart



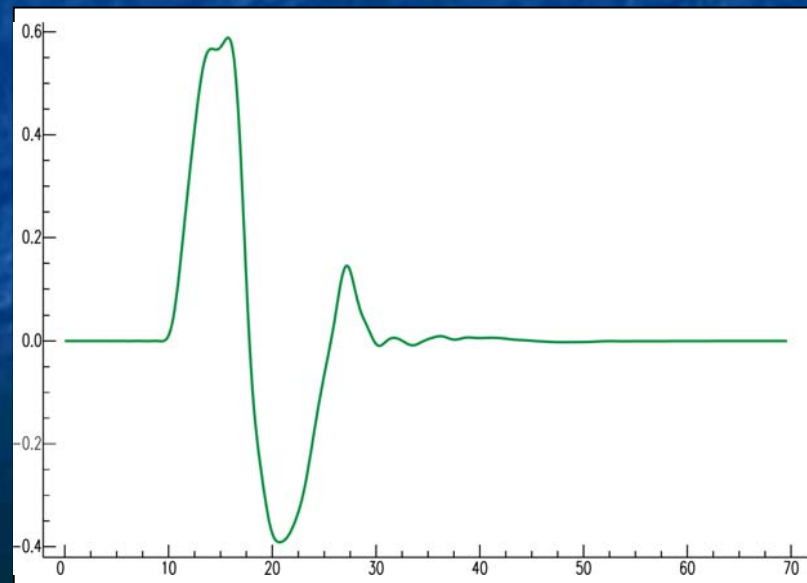
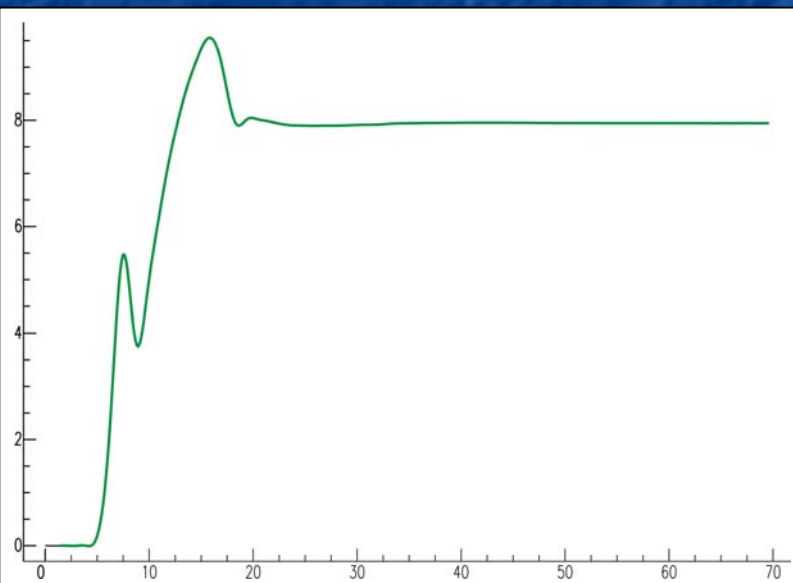
Source  
Configuration

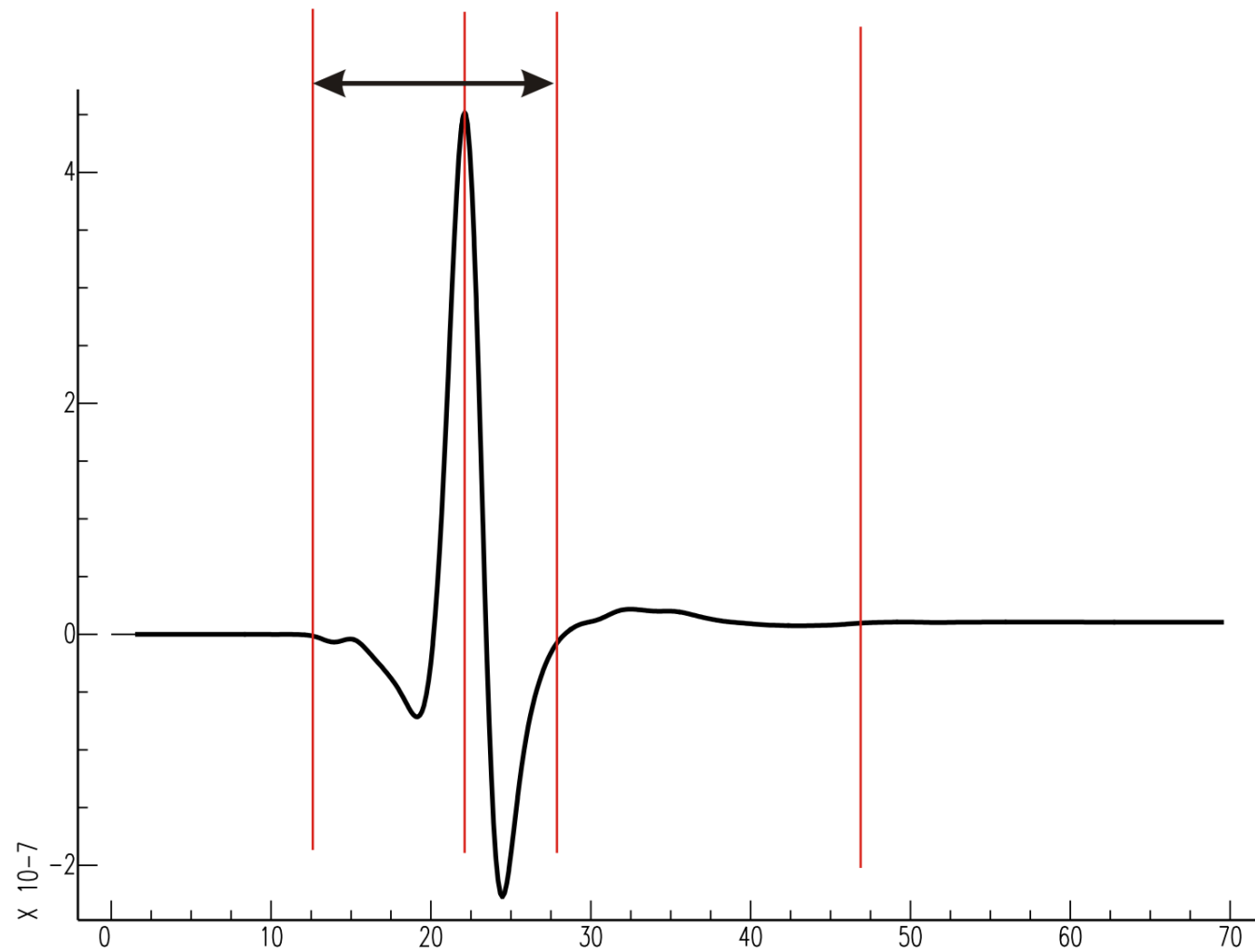


Source - observer layout for a directivity test. Source is a pure strike slip with directivity along X. Magnitude 6.5. Distances are in km.

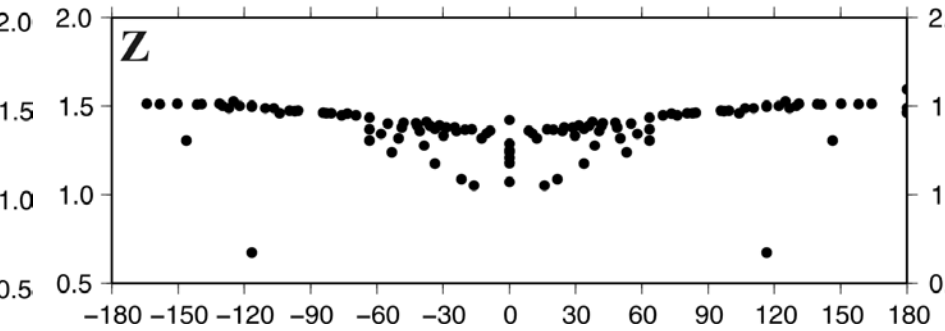
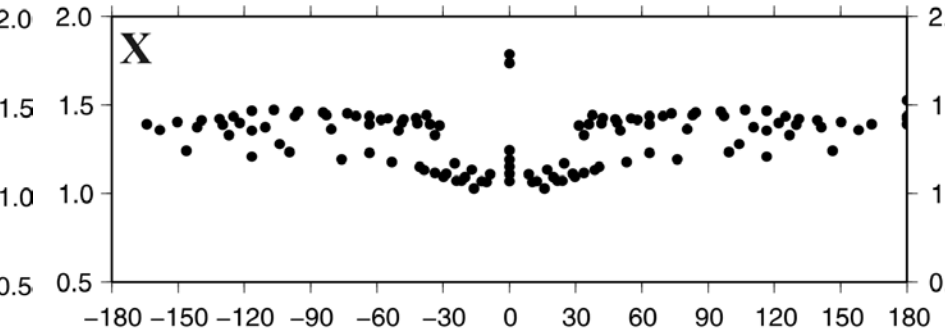
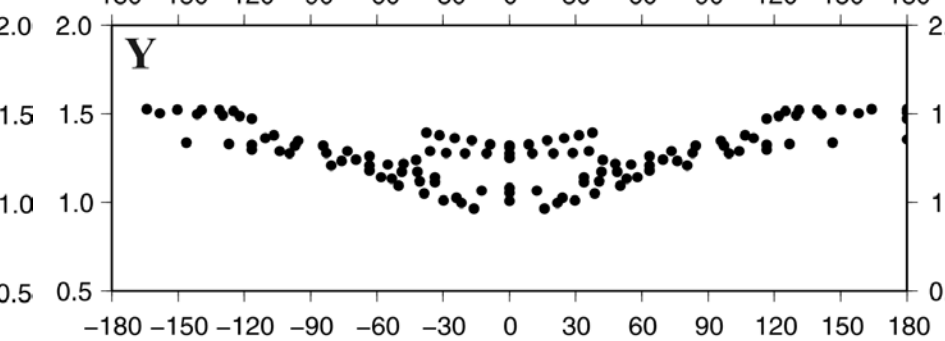
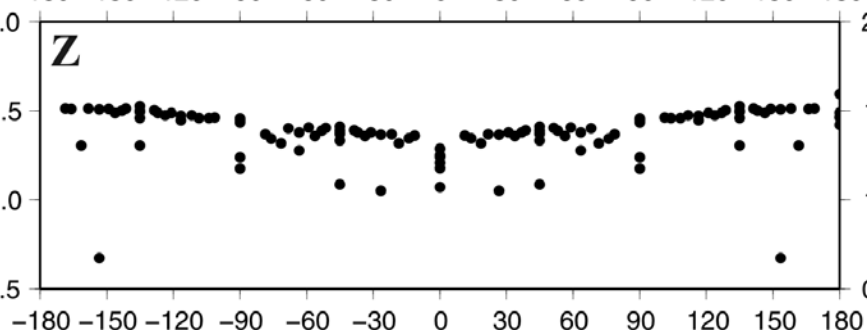
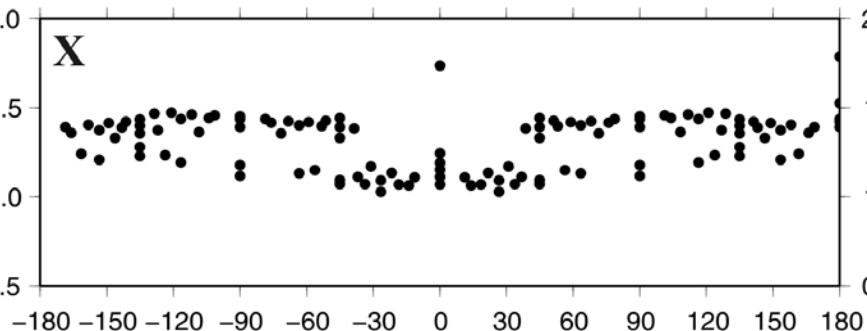
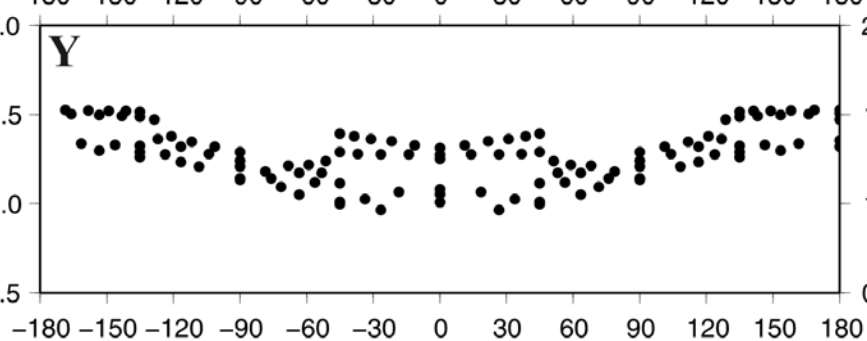


Displacement waveform zoo.



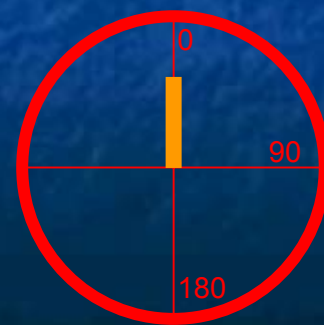


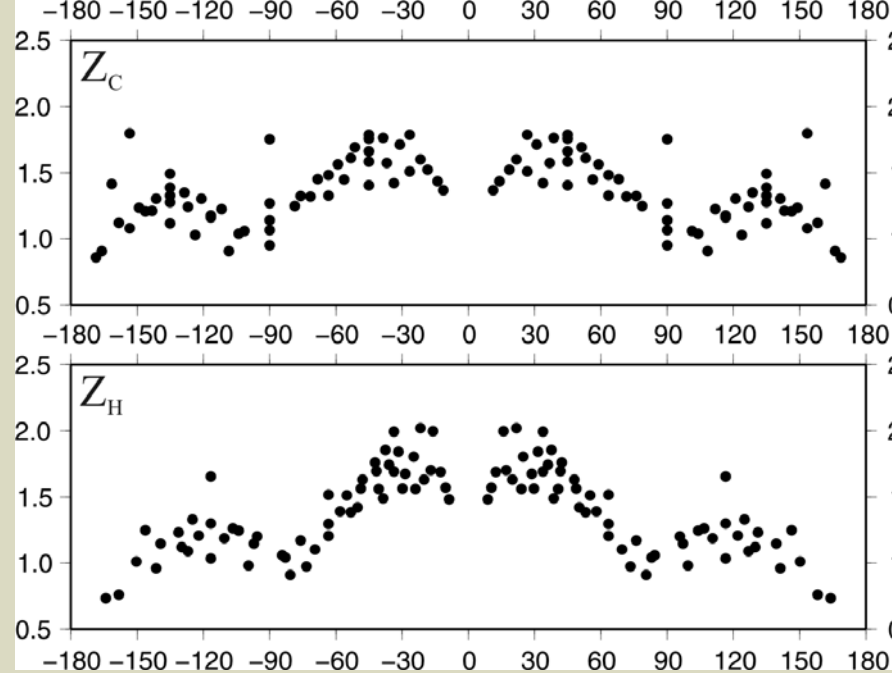
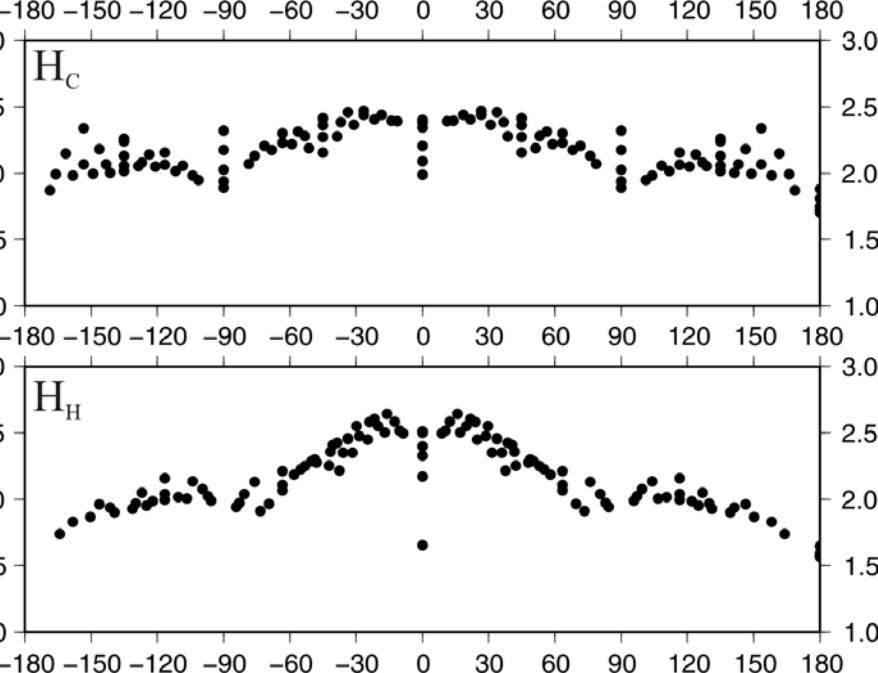
Definition of the pulse half width.



Variation of Log(t0)  
in function of view angle  
(directivity).

$$\text{Log}(t_0) = -3.17 + 0.5 M_w$$

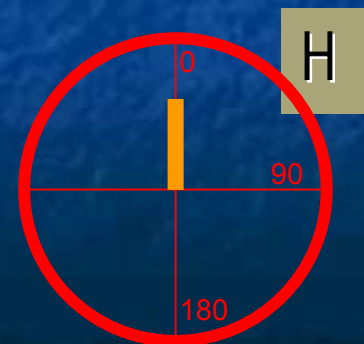
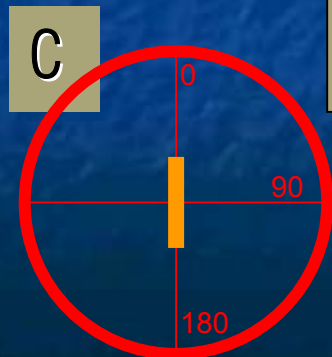




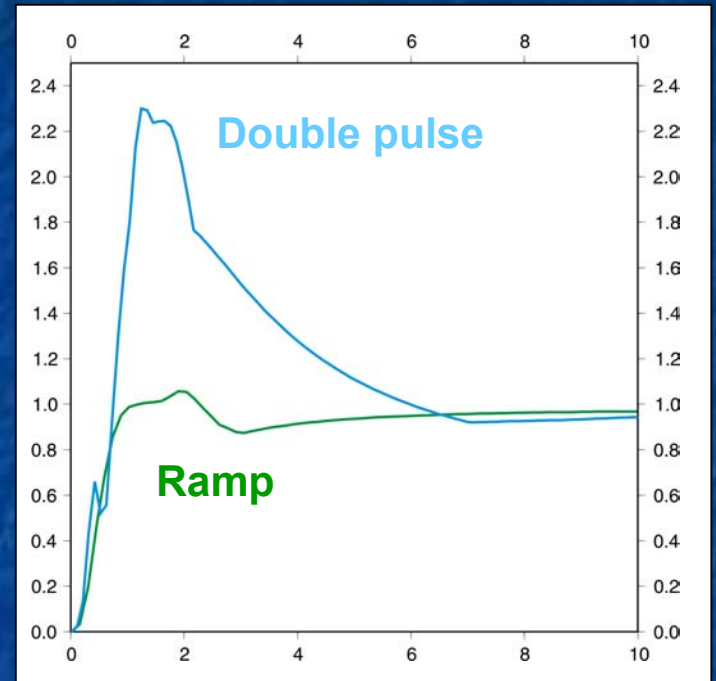
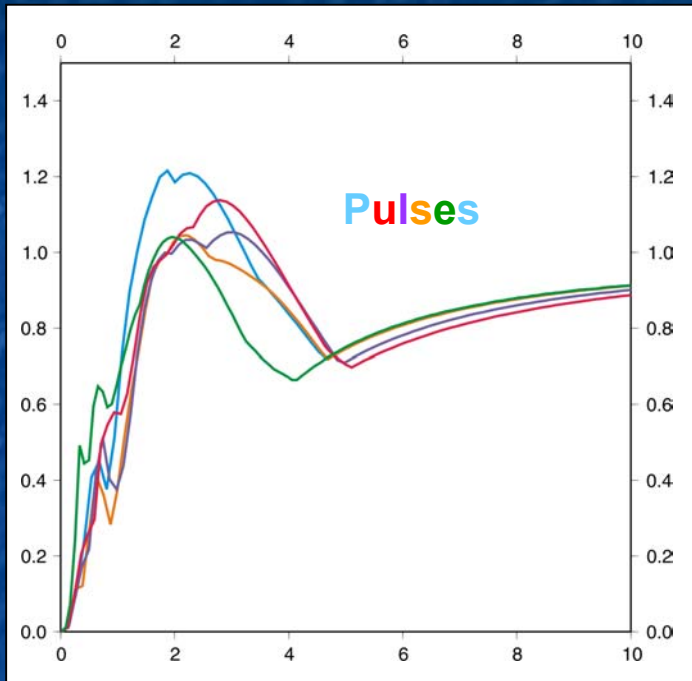
Horizontal  
component

Variation of  
 $\text{Log}(D_{\text{max}}) + \text{Log}(r)$   
in function of the view angle  
(directivity).

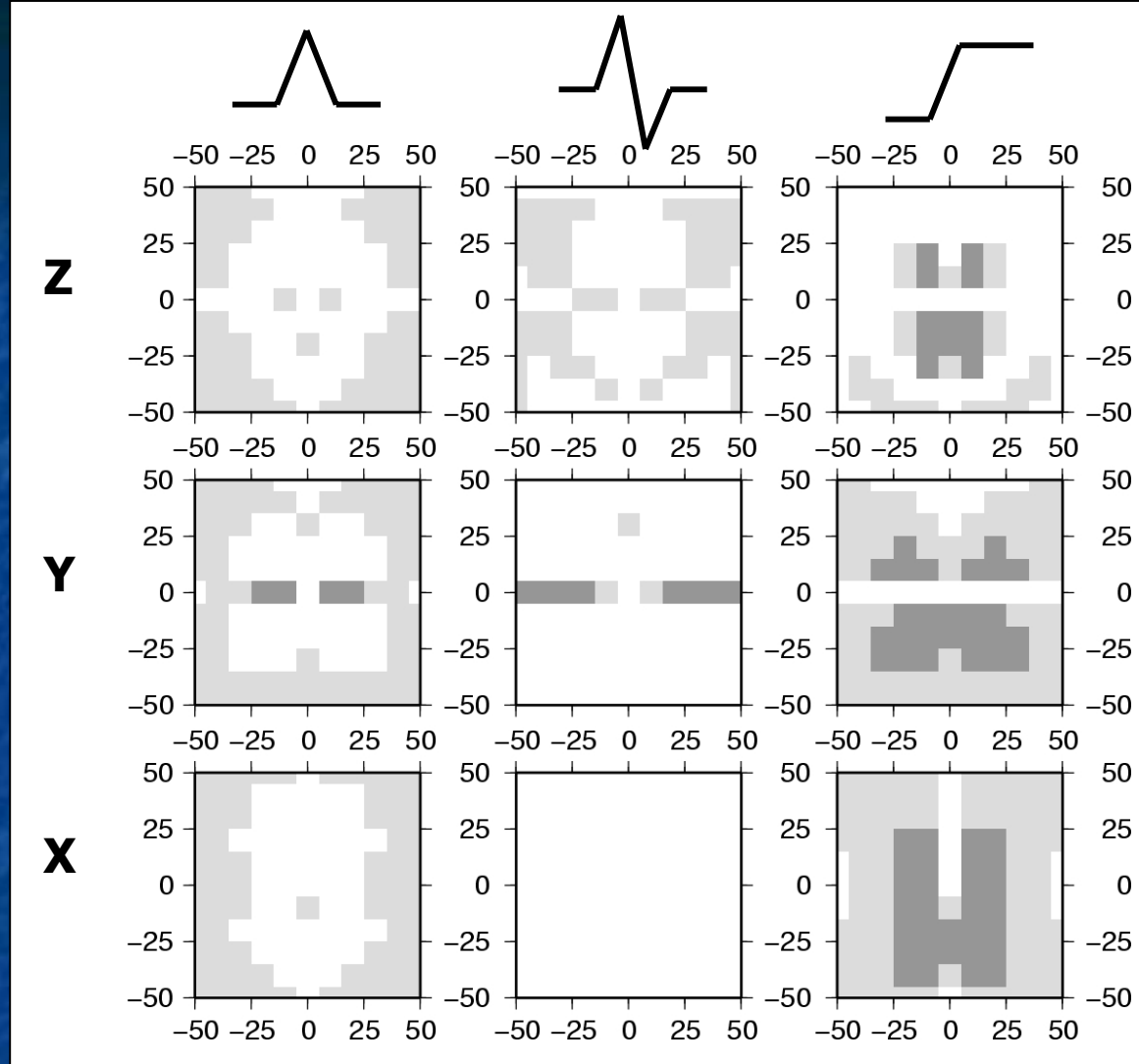
Vertical  
component



$$\text{Log}(D_{\text{max}}) = -4.3 + M_w - \text{Log}(r)$$



5% damped srs normalized to  $D_{max}$  and  $t_0$  for pulse, ramp and double pulse displacement waveforms.



Categorization of the displacement signal using correlation.

# Conclusions

The bad news :

- We are one month late on the schedule.

The good news :

- The next step will be much faster

These results are planned to be shown on SSA meeting next april