

Riferimento misura: **052006P127**

Durata delle registrazione: **30 Minuti** (Analisi non eseguita sull'intera traccia)

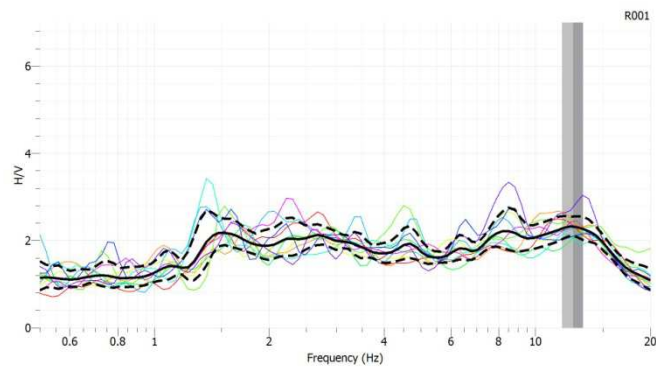
Frequenza di campionamento: **300 Hz**

Lunghezza delle finestre: **70 s**

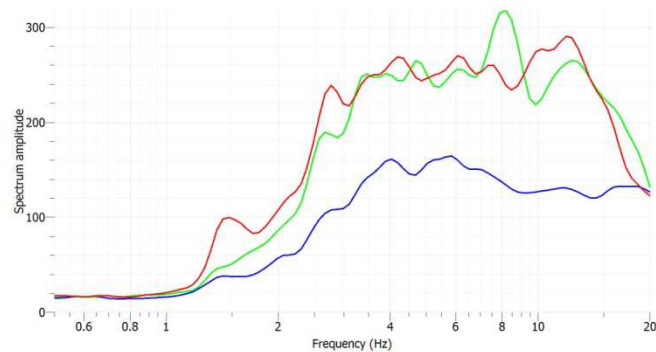
Tipo di lisciamento: **coseno**

Lisciamento: **5%**

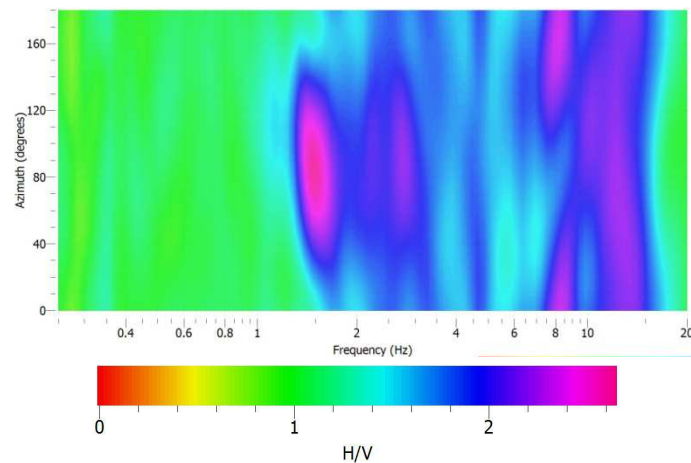
### Curva HVSR



### Spettri delle singole componenti



### Direzionalità



### Serie temporale

**$(Nc \cdot Lw / Tr) \cdot 100 > 30\%$**

**38.9% > 30%**

**OK**

**Picco H/V a  $12.6 \pm 0.36$  Hz (nell'intervallo 0.2 -20 Hz)**

**Criteri per una curva H/V affidabile**

(Tutti e tre i criteri devono essere soddisfatti)

|                                                                                                                                        |                                                    |    |
|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----|
| $f_0 > 10 / L_w$                                                                                                                       | $12.6 > 0.14$                                      | OK |
| $nc(f_0) > 200$                                                                                                                        | $8576 > 200$                                       | OK |
| $\sigma_A(f) < 2$ for $0.5f_0 < f < 2f_0$ if $f_0 > 0.5\text{Hz}$<br>$\sigma_A(f) < 3$ for $0.5f_0 < f < 2f_0$ if $f_0 < 0.5\text{Hz}$ | Superato 0 volte su 100<br>Superato 0 volte su 100 | OK |

**Criteri per un picco H/V chiaro**

(Almeno cinque criteri su sei devono essere soddisfatti)

|                                                             |                 |    |
|-------------------------------------------------------------|-----------------|----|
| Exists f - in $[f_0/4, f_0]$   $A_{H/V}(f^-) < A_0 / 2$     | $1.6 < 1.16$    | NO |
| Exists f + in $[f_0, 4f_0]$   $A_{H/V}(f^+) < A_0 / 2$      | $1.1 < 1.16$    | OK |
| $A_0 > 2$                                                   | $2.31 > 2$      | OK |
| $f_{\text{peak}}[A_{H/V}(f) \pm \sigma_A(f)] = f_0 \pm 5\%$ | $ 0.02  < 0.05$ | OK |
| $\sigma_f < \varepsilon(f_0)$                               | $1 < 0.63$      | NO |
| $\sigma_A(f_0) < \theta(f_0)$                               | $1.1 < 1.78$    | OK |

**Legenda**

|                        |                                                                                                                                       |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| $L_w$                  | window length                                                                                                                         |
| $n_w$                  | number of windows used in the analysis                                                                                                |
| $n_c = L_w n_w f_0$    | number of significant cycles                                                                                                          |
| $f$                    | current frequency                                                                                                                     |
| $f_0$                  | H/V peak frequency                                                                                                                    |
| $\sigma_f$             | standard deviation of H/V peak frequency                                                                                              |
| $\varepsilon(f_0)$     | threshold value for the stability condition $\sigma_f < \varepsilon(f_0)$                                                             |
| $A_0$                  | H/V peak amplitude at frequency $f_0$                                                                                                 |
| $A_{H/V}(f)$           | H/V curve amplitude at frequency $f$                                                                                                  |
| $f^-$                  | frequency between $f_0/4$ and $f_0$ for which $A_{H/V}(f^-) < A_0/2$                                                                  |
| $f^+$                  | frequency between $f_0$ and $4f_0$ for which $A_{H/V}(f^+) < A_0/2$                                                                   |
| $\sigma_A(f)$          | standard deviation of $A_{H/V}(f)$ , $\sigma_A(f)$ is the factor by which the mean $A_{H/V}(f)$ curve should be multiplied or divided |
| $\sigma_{\log H/V}(f)$ | standard deviation of $\log A_{H/V}(f)$ curve                                                                                         |
| $\theta(f_0)$          | threshold value for the stability condition $\sigma_A(f) < \theta(f_0)$                                                               |

**Threshold values for  $\sigma_f$  and  $\sigma_A(f_0)$**

| Freq.range [Hz]                                | < 0.2      | 0.2 – 0.5 | 0.5 – 1.0  | 1.0 – 2.0  | > 2.0      |
|------------------------------------------------|------------|-----------|------------|------------|------------|
| $\varepsilon(f_0)$ [Hz]                        | $0.25 f_0$ | $0.2 f_0$ | $0.15 f_0$ | $0.10 f_0$ | $0.05 f_0$ |
| $\theta(f_0)$ for $\sigma_A(f_0)$              | 3.0        | 2.5       | 2.0        | 1.78       | 1.58       |
| Log $\theta(f_0)$ for $\sigma_{\log H/V}(f_0)$ | 0.48       | 0.40      | 0.30       | 0.25       | 0.20       |