

Harmonoise og Imagine i teori og praksis

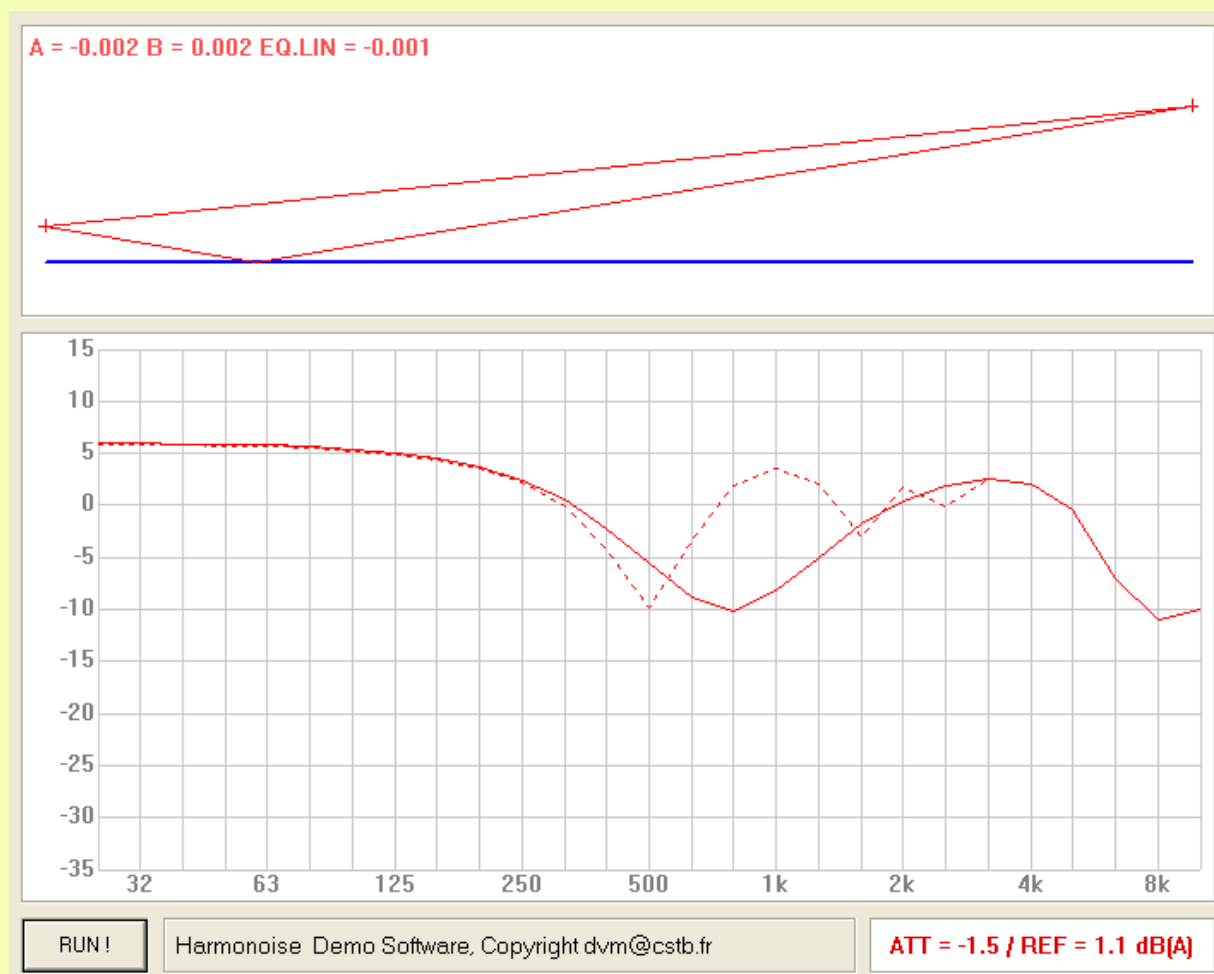
Ny reknemetode for ekstern støy
Evaluering

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KILDE Akustikk AS

Perfekt flat mark.

Geometri: dsr=25(dotted)/150m. hs=0,9m. hr=4m.

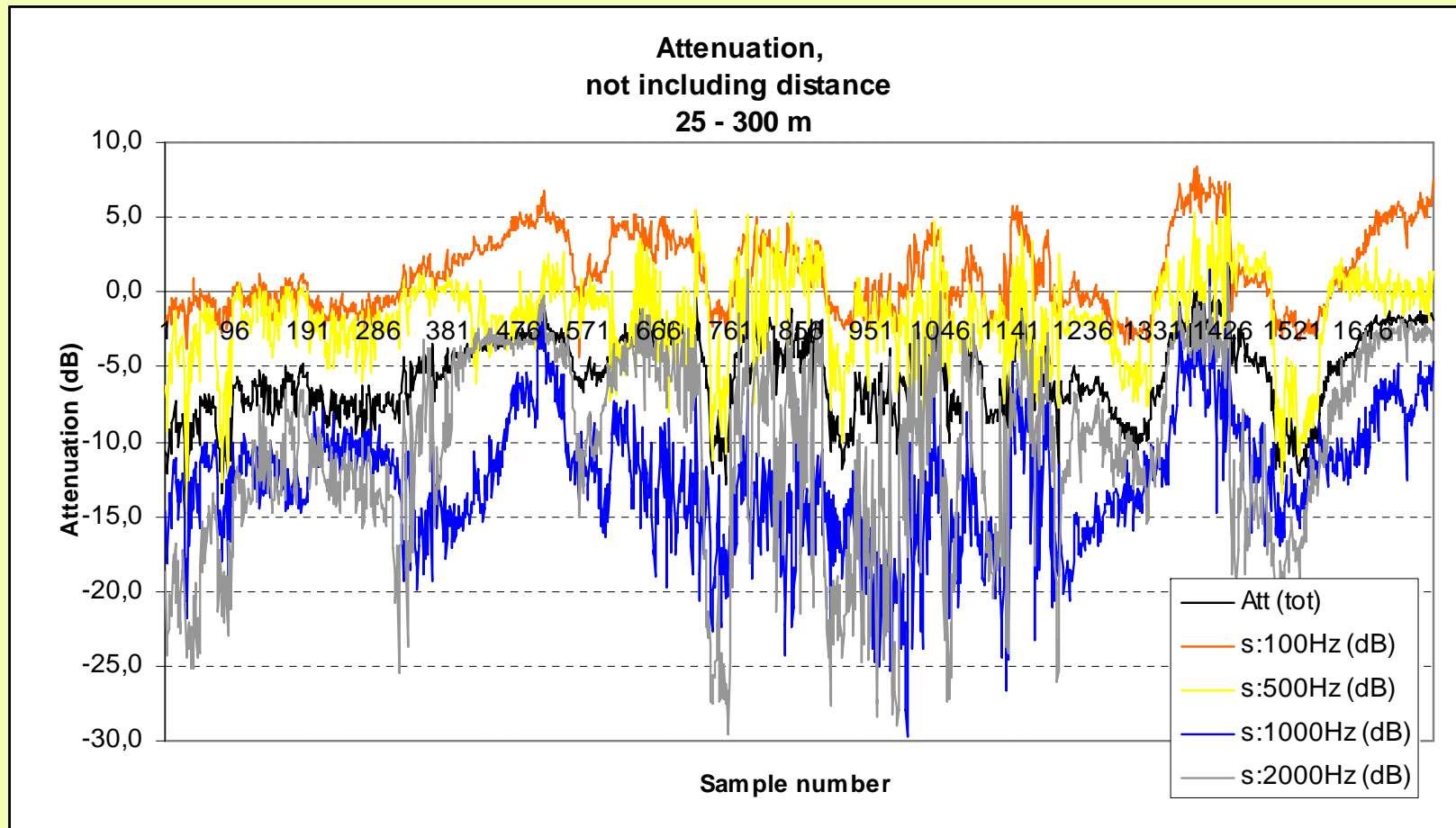
Mjuk mark: 630kRayls



Feltmåling med høgtalar. Lydnivå

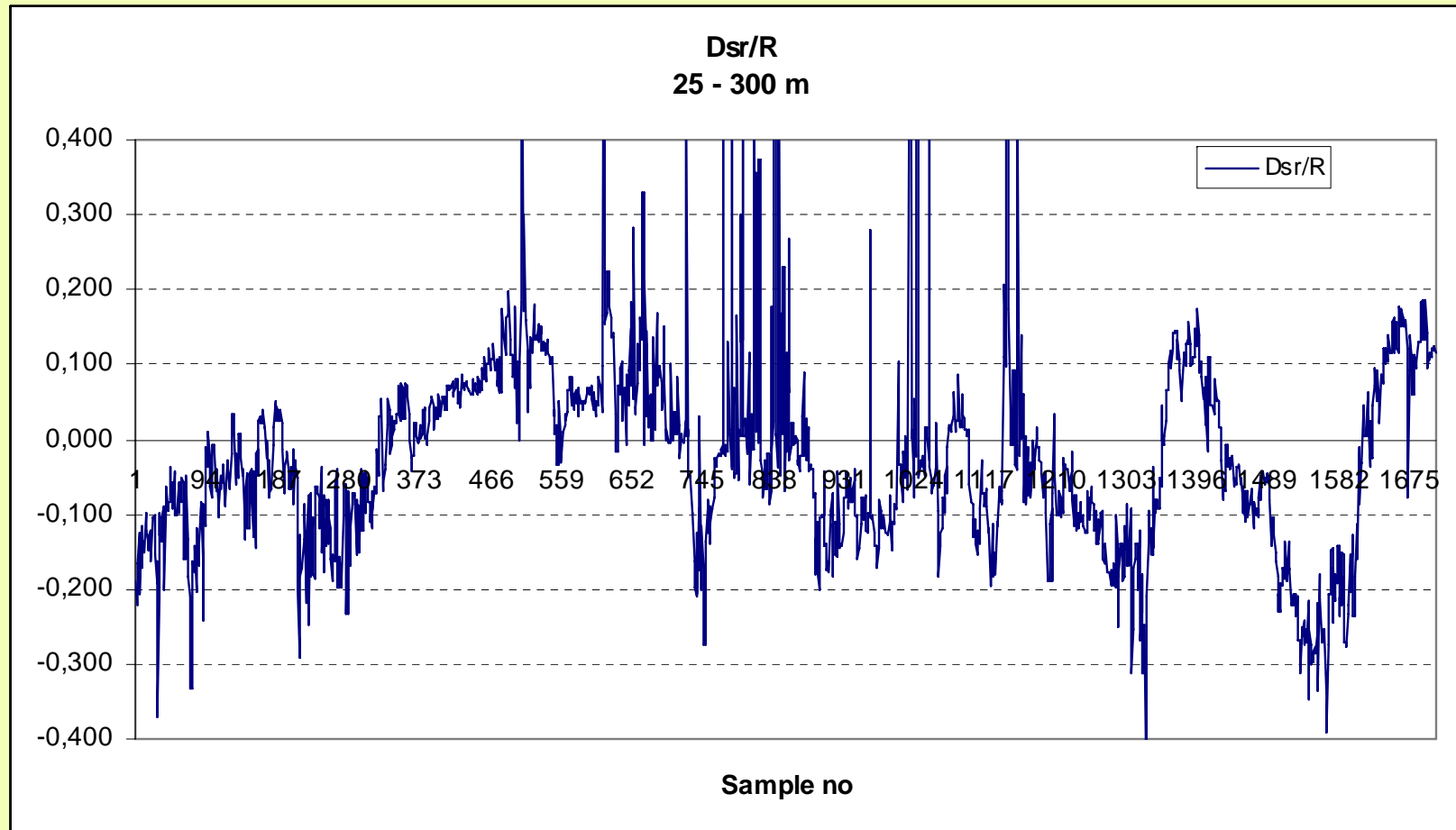
Geometri: dsr=25/300m. hs=0,9m. hr=4m.

Mjuk mark: 630kRayls

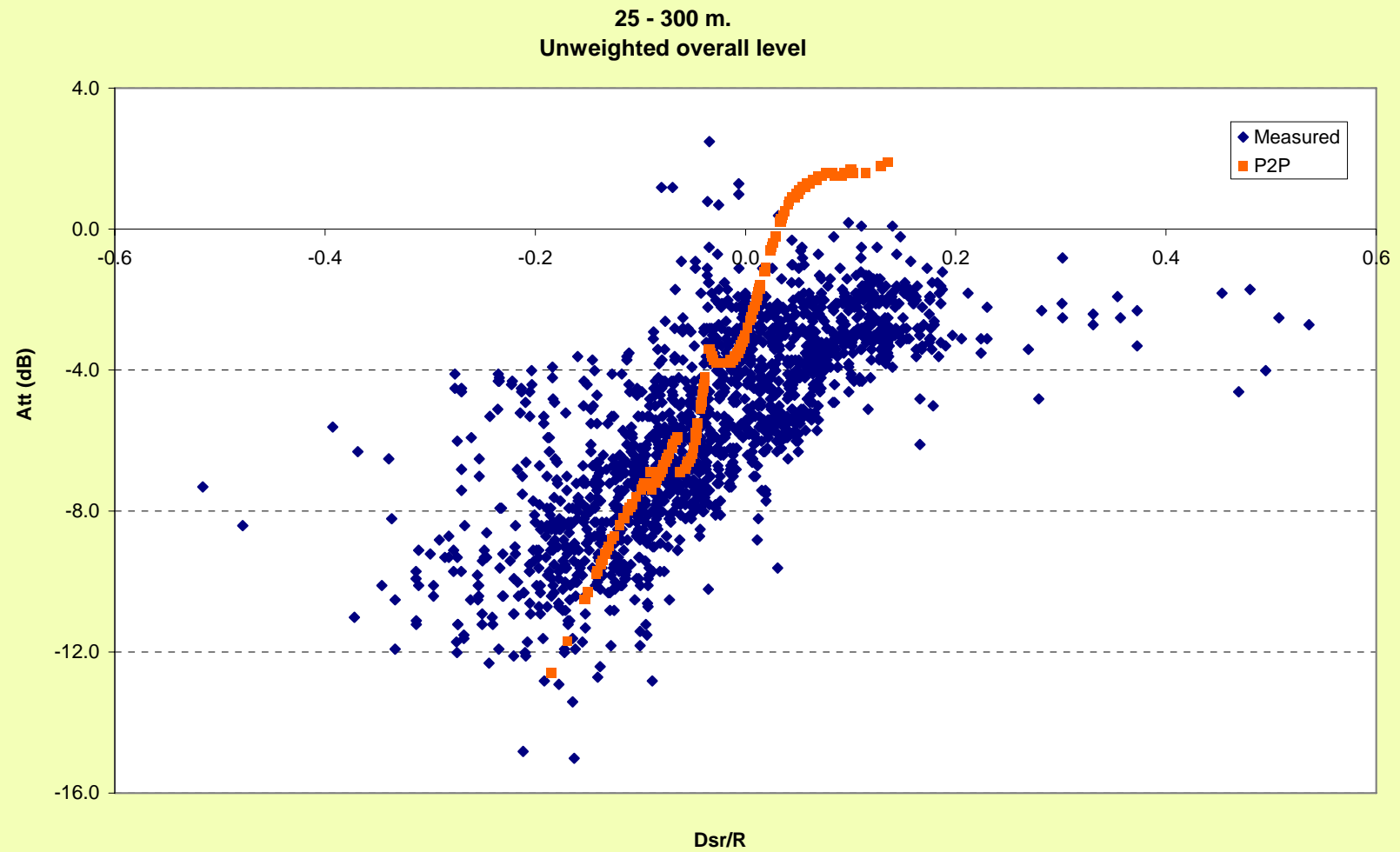


Feltmåling med høgtalar. Meteorologi. Lydbane radius.

Avstand kjelde/mottakar, $D_{sr}=300\text{m}$. Lydbane radius, R

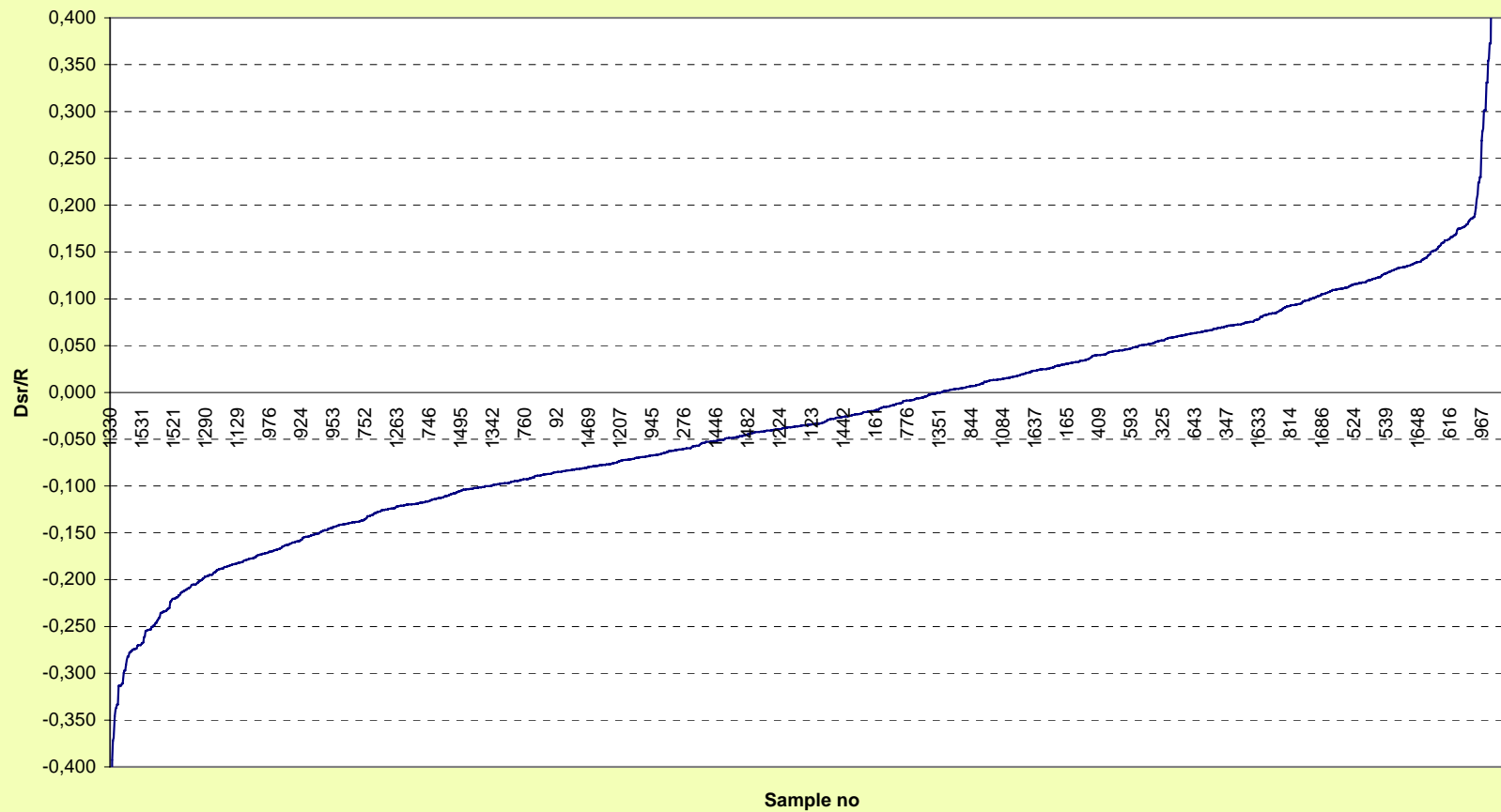


Feltmåling med høgtalar. Samanlikning m/ teori



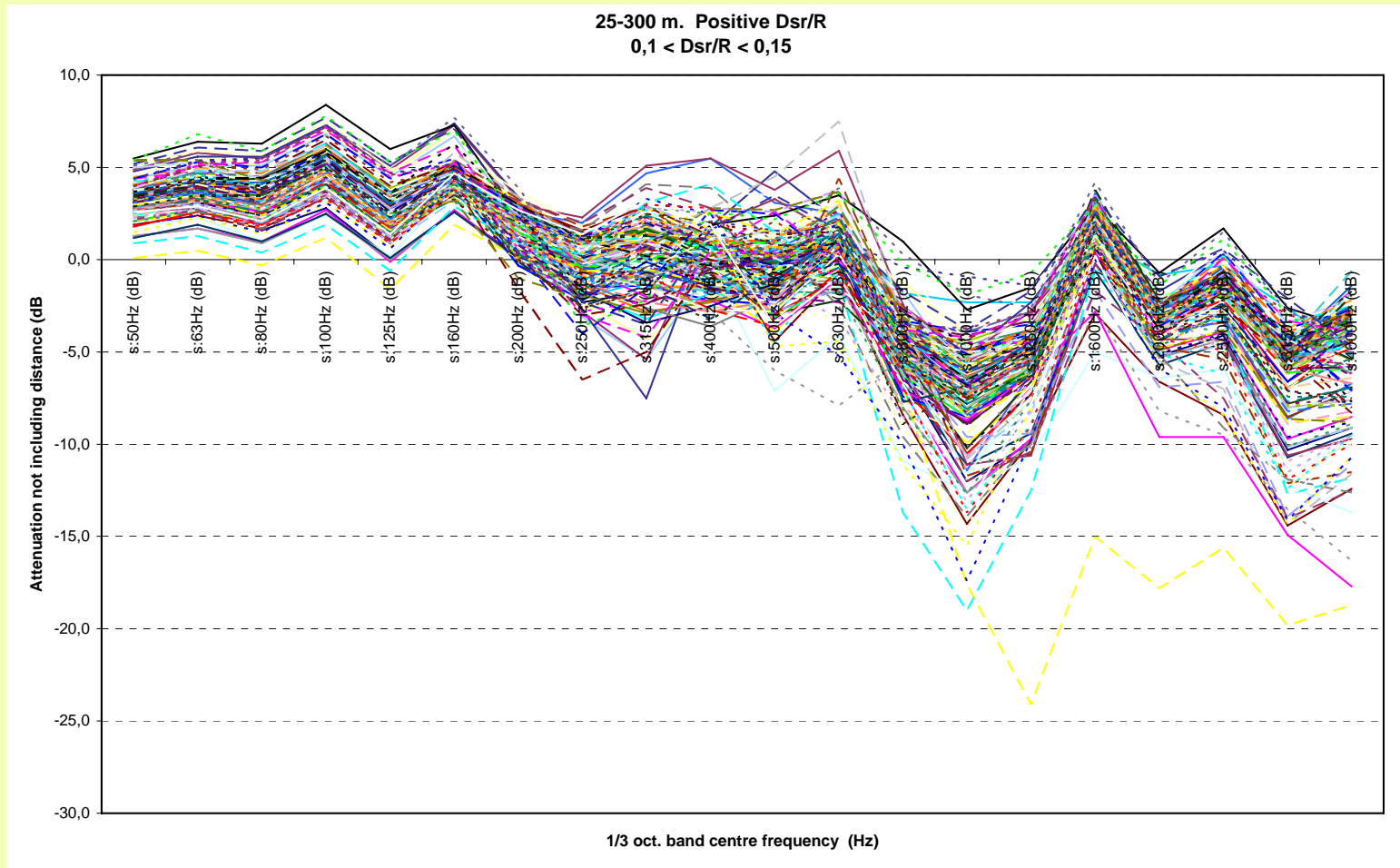
Feltmåling med høgtalar. Meteo klassifisering

25 - 300 m
Samples sorted as function of increasing Dsr/R



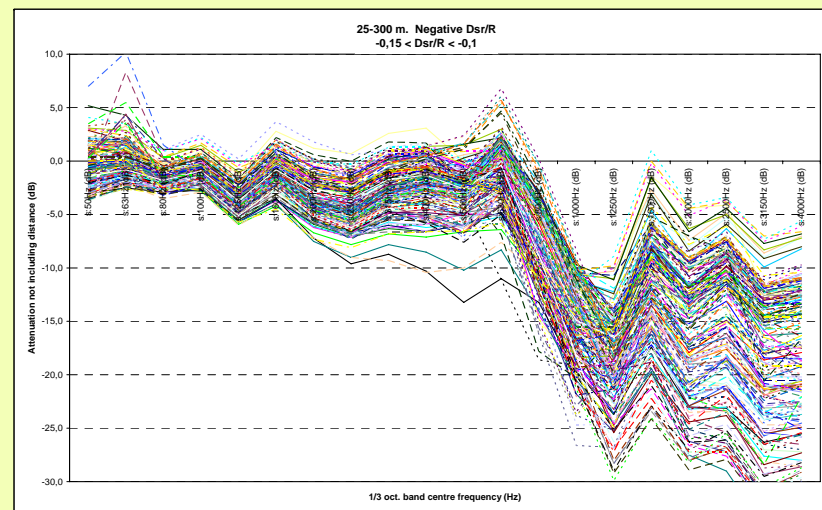
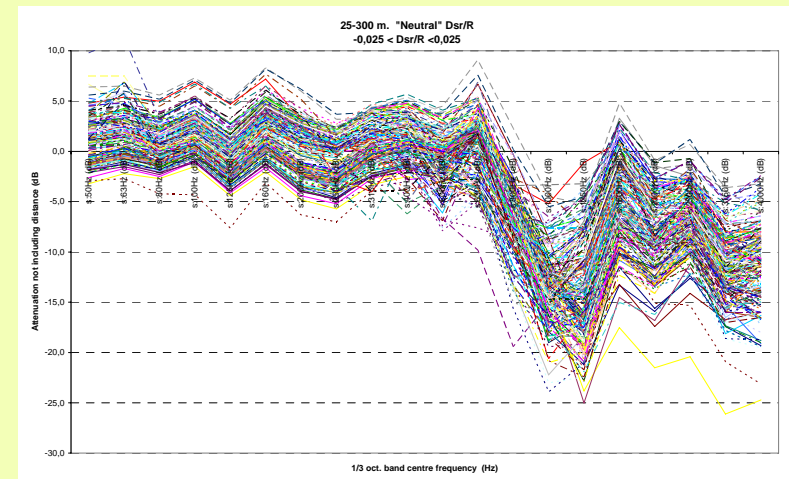
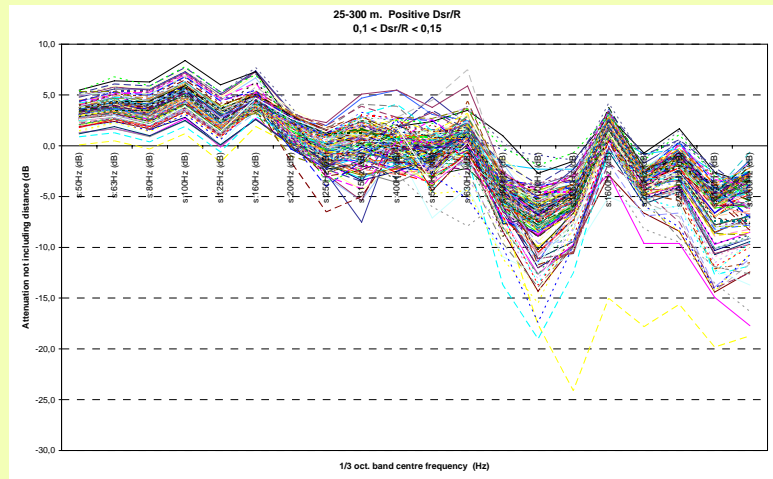
Feltmåling med høgtalar. (Positiv grad)

Geometri: $d_{sr}=25/300\text{m}$.



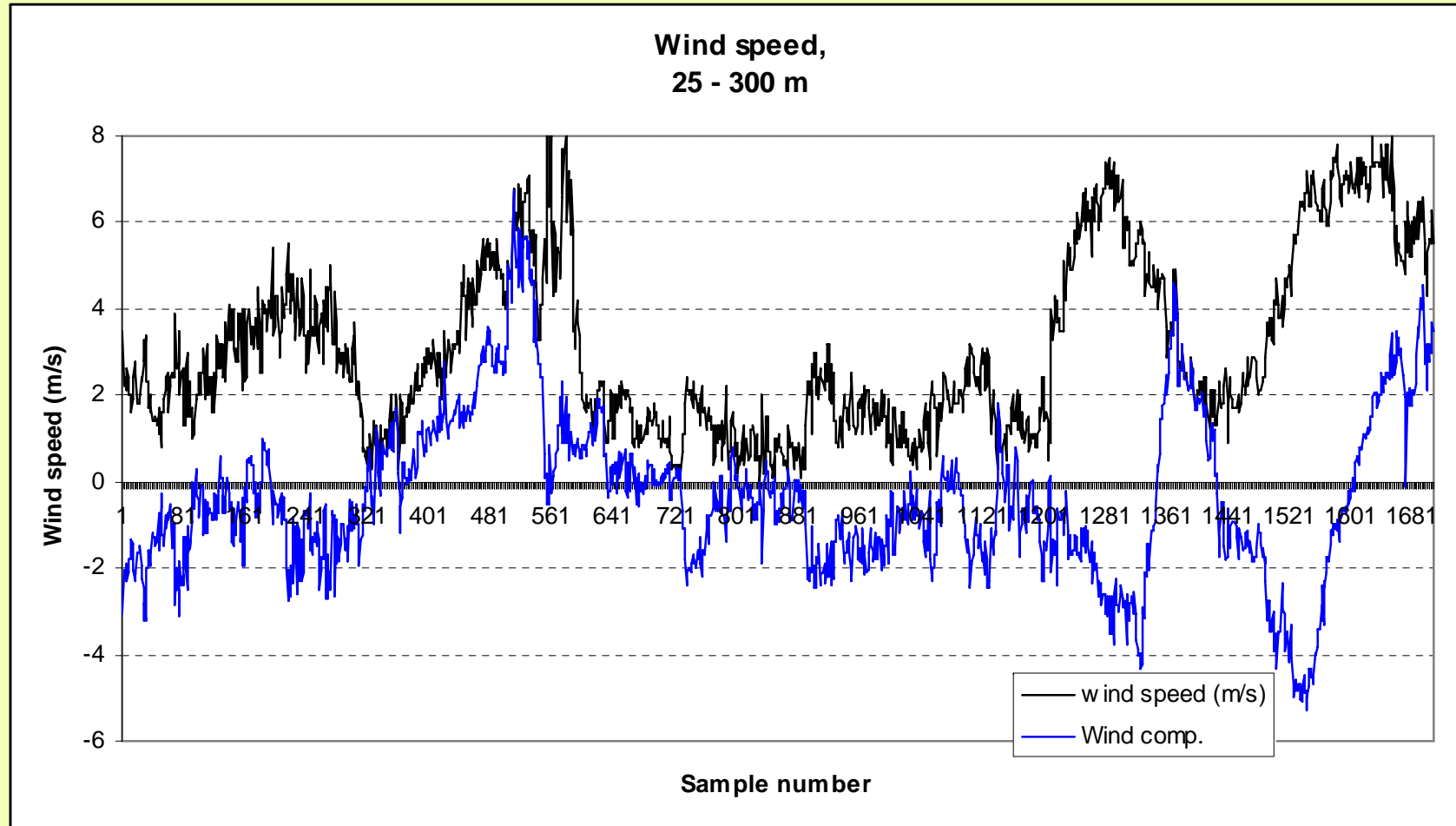
Feltmåling med høgtalar. (Pos/nøytral/neg. grad)

Geometri: dsr=25/300m.

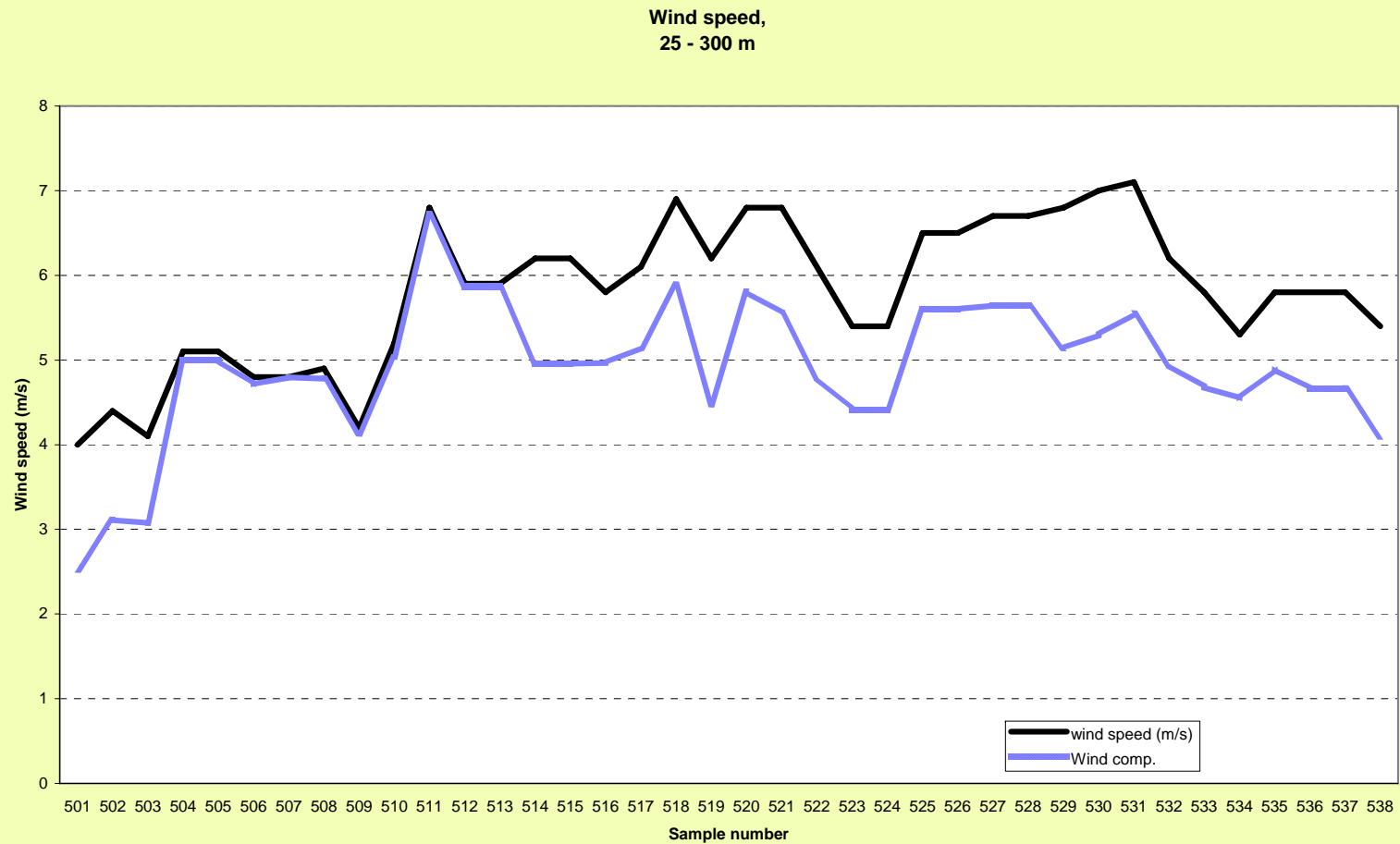


Feltmåling med høgtalar. Vind

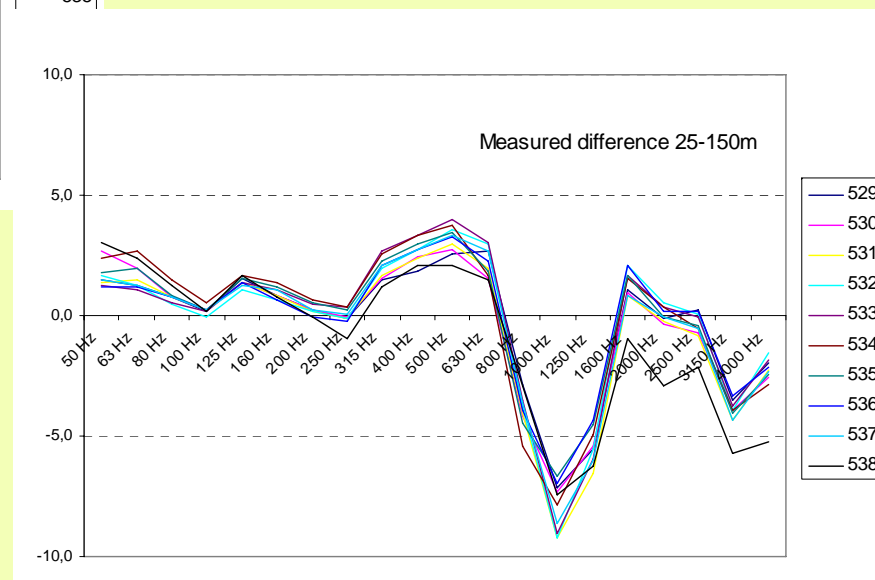
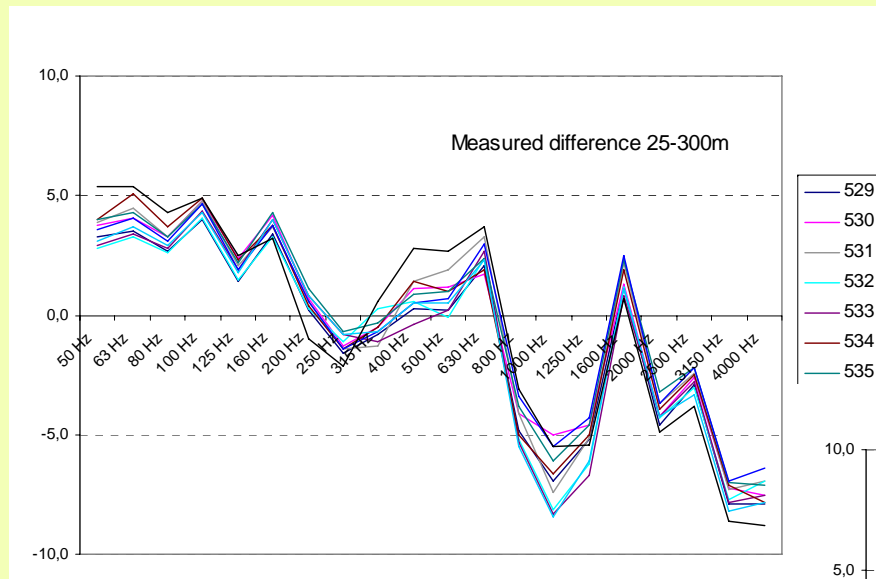
Geometri: $d_{sr}=25/300\text{m}$.



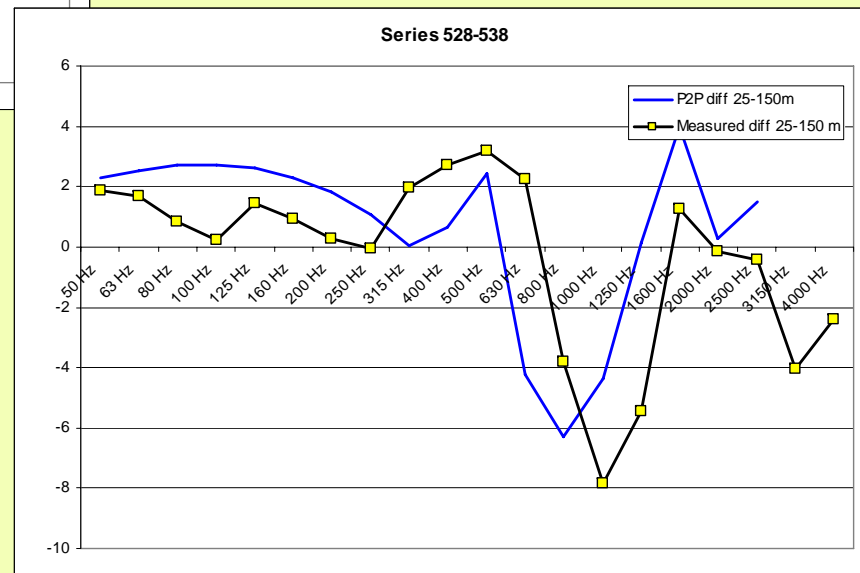
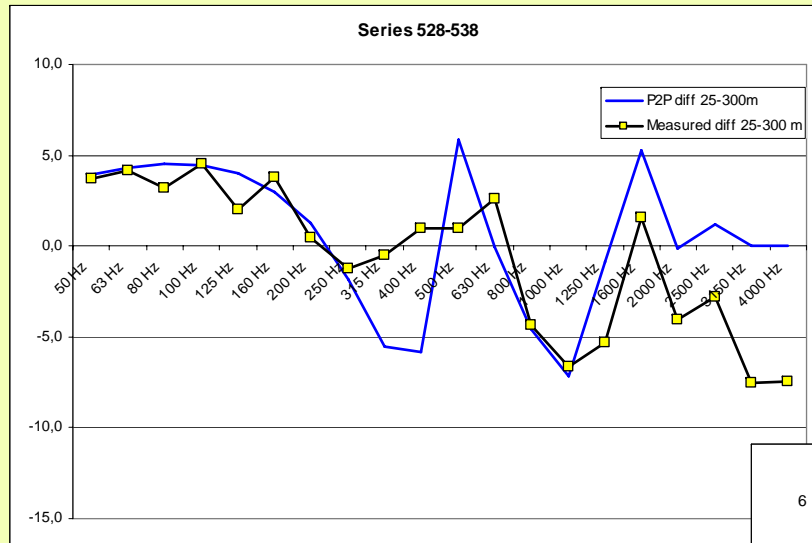
Feltmåling med høgtalar. 4-5,5 m/s medvind



Feltmåling med høgtalar. 4-5,5 m/s medvind



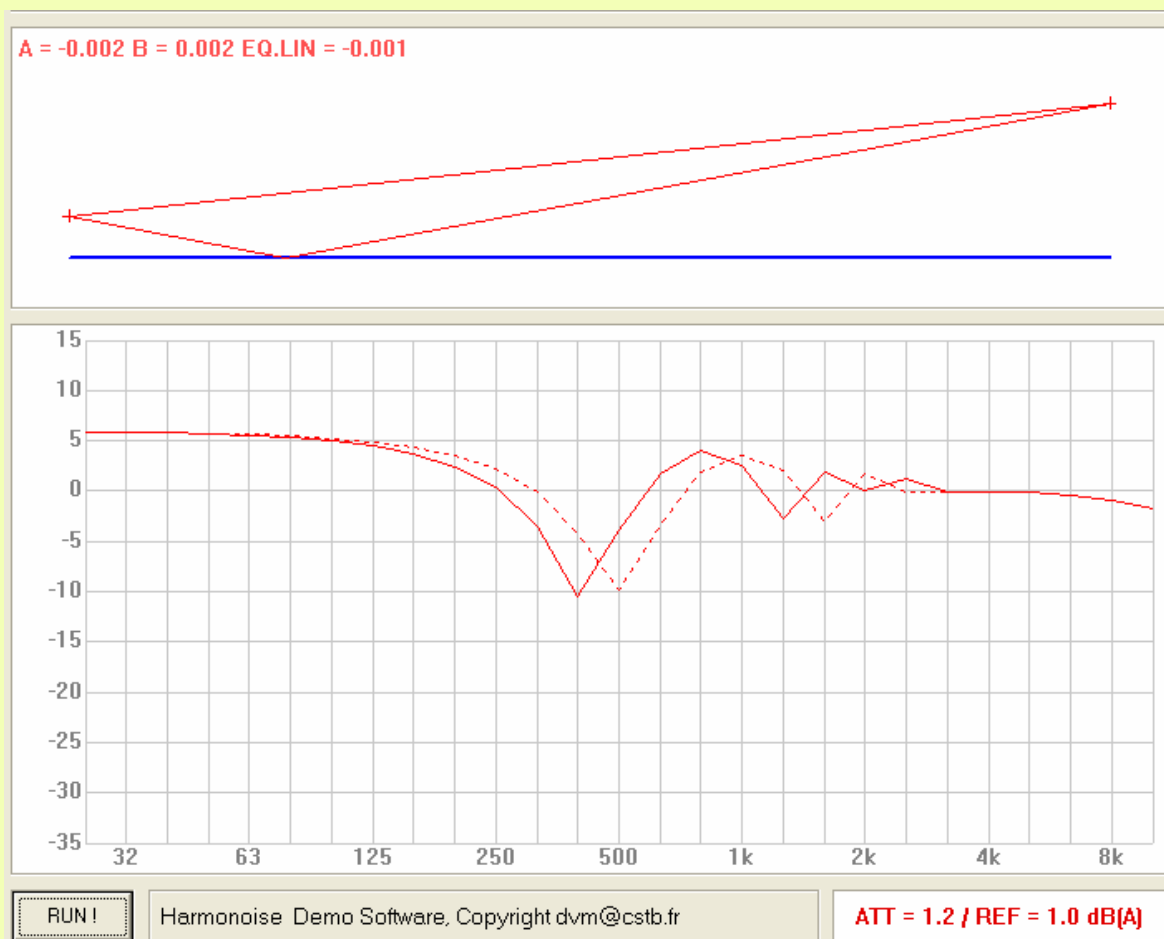
Feltmåling med høgtalar. 4-5,5 m/s medvind



Perfekt flat mark. Effekt av 0,2m "feil" markhøgde

Geometri: dsr=25m. hs=0,9/1,1m. hr=4/4,2m.

Mjuk mark: 630kRayls



Reknepresisjon etter føremål:-

Å bestemme ulemper i ein reel situasjon.

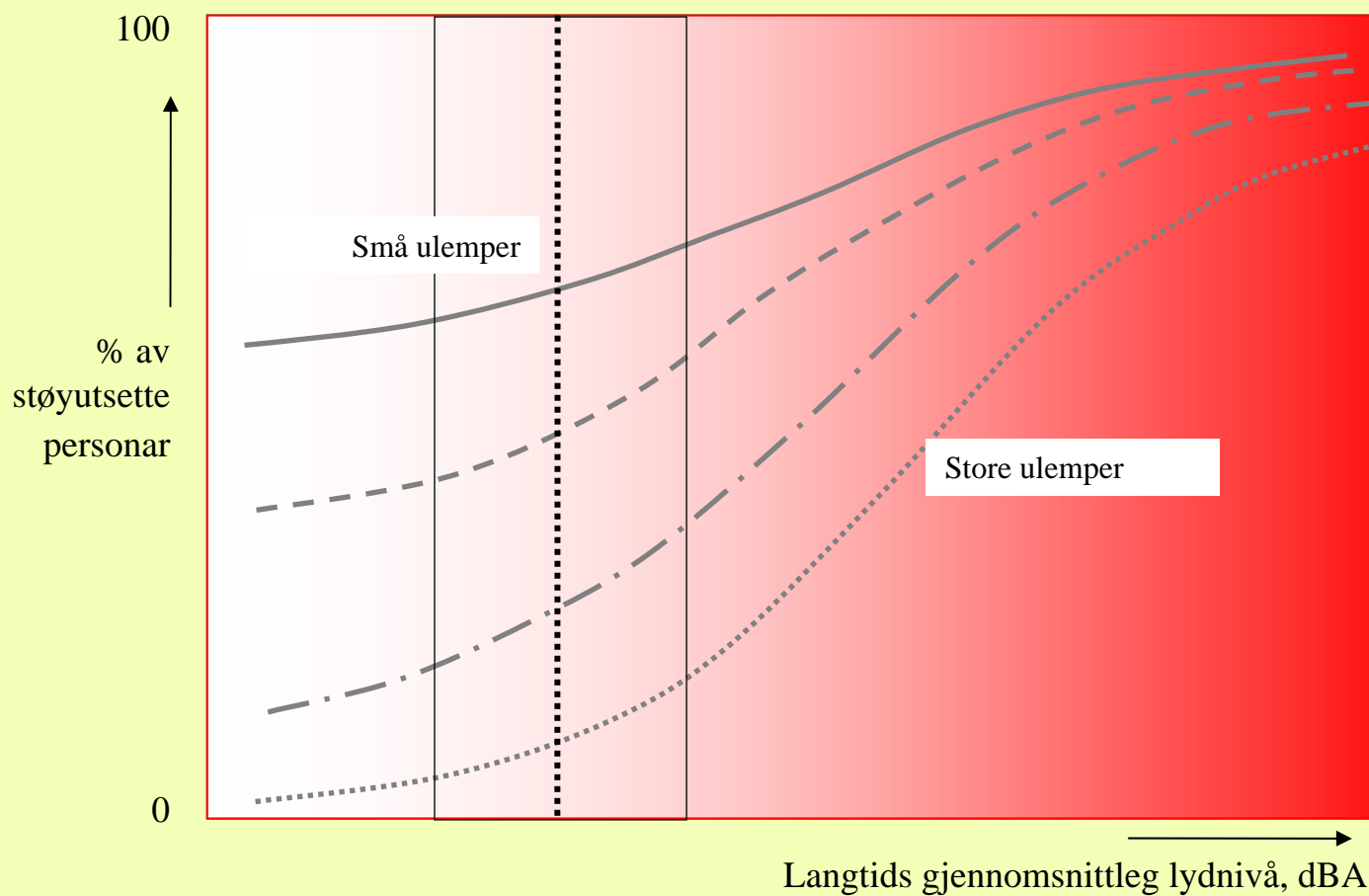
-Langstids dBA

I motsetnad til ein ideel, teoretisk situasjon, der alle variable er modellerte på ein bestemt, detaljert måte:

- Kjelde: punkt/høgde/direktivitet/styrke
- Geometri og impedans
- Meteorologi,

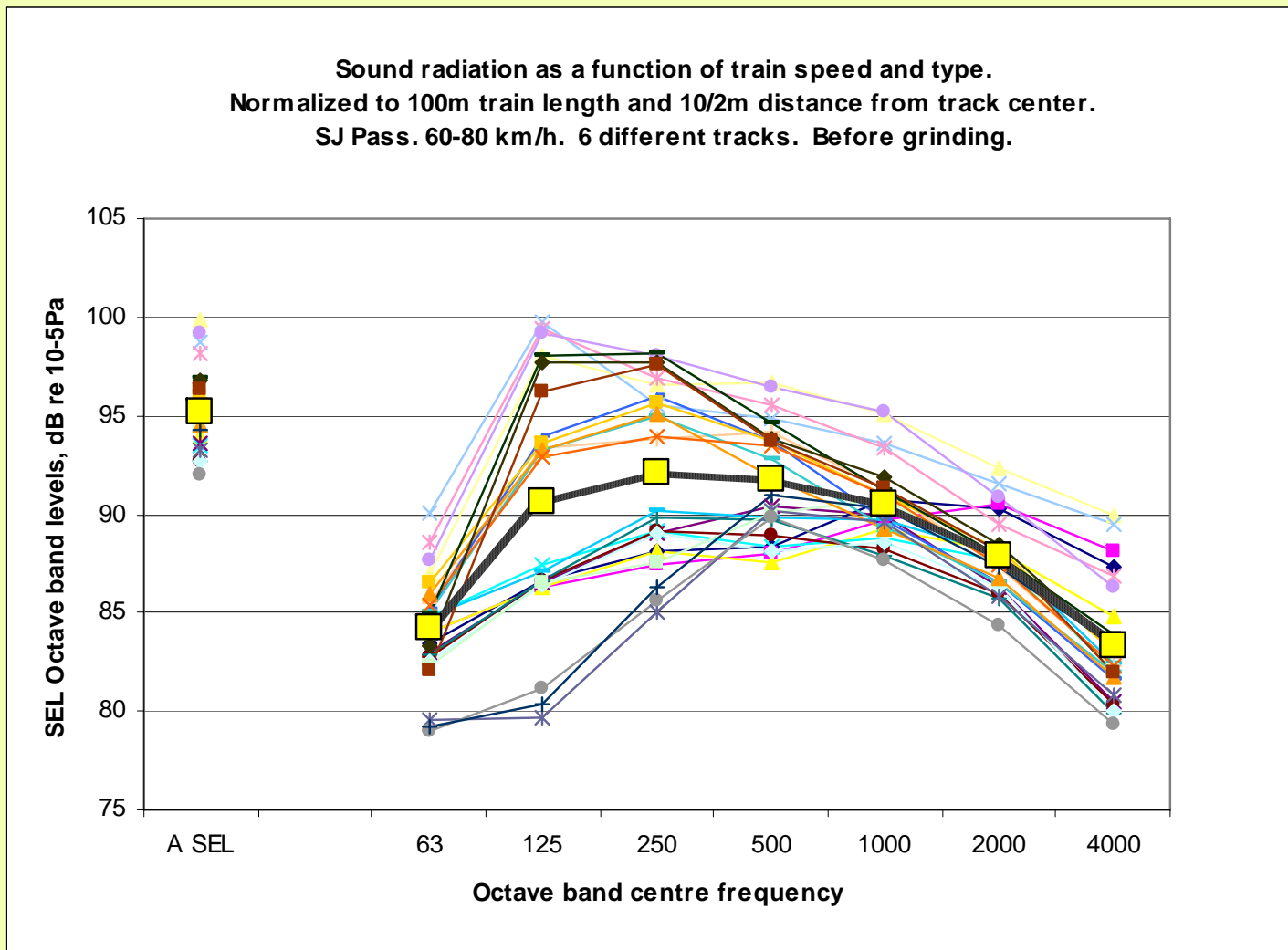
Kvar er mottakaren, forresten?

Støyulemper og grensesetting



Lydkjelda (tog)

Sound radiation as a function of train speed and type.
Normalized to 100m train length and 10/2m distance from track center.
SJ Pass. 60-80 km/h. 6 different tracks. Before grinding.



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Takk!

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