光学定盤(PSLroom)の固有振動について２

18.09.28
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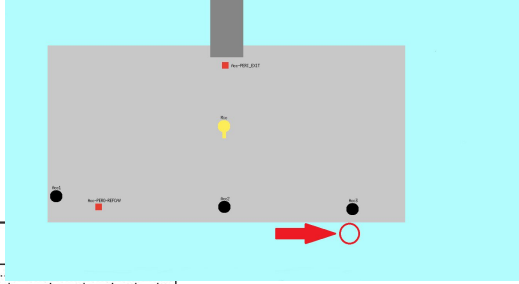
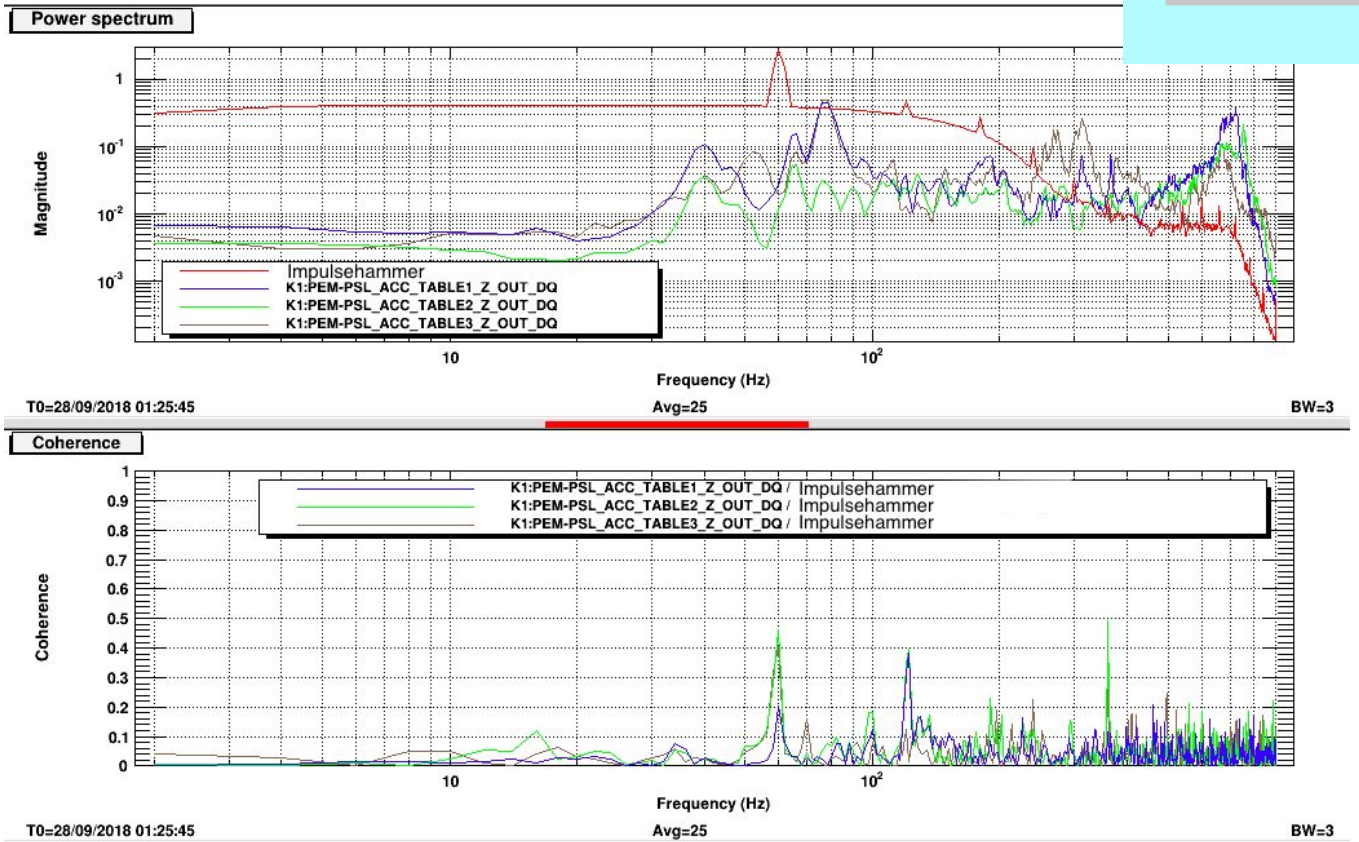
インパルスハンマーを用いて加振させる

音響インジェクションの際に見えていた、40Hzと80Hz付近が実際に加振することで励起されるかを確認した。

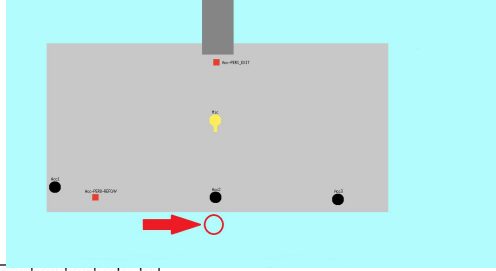
結果は3ページ目からのスライドにまとめてある。

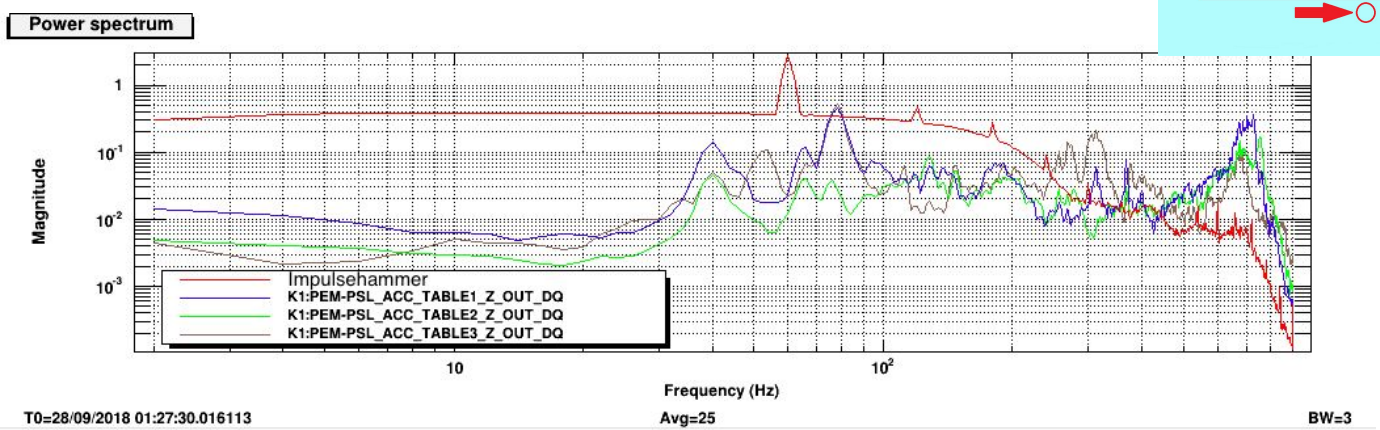
ACC Table3が設置してある定盤のすぐ下の床を叩いた時

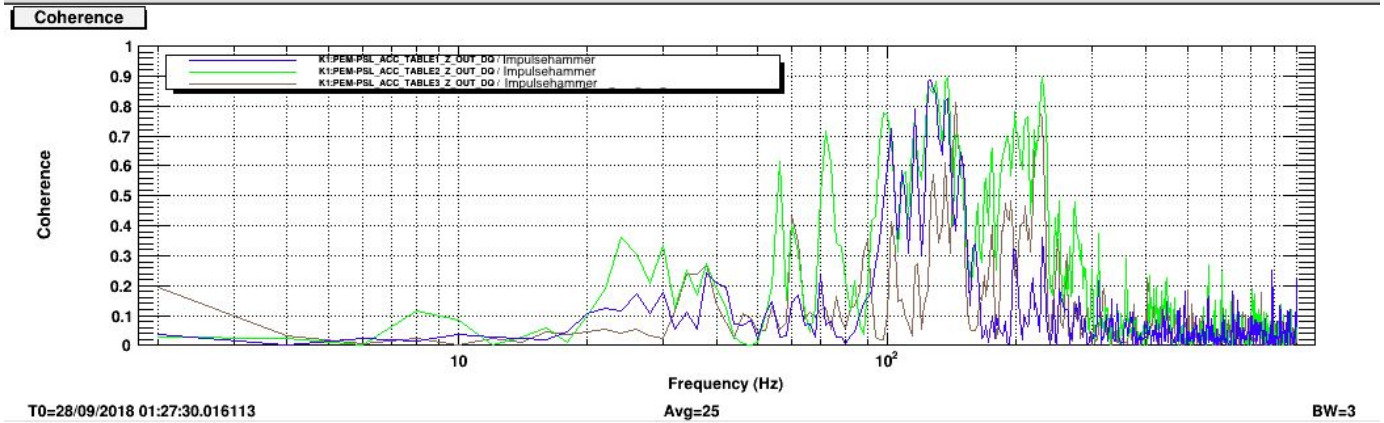




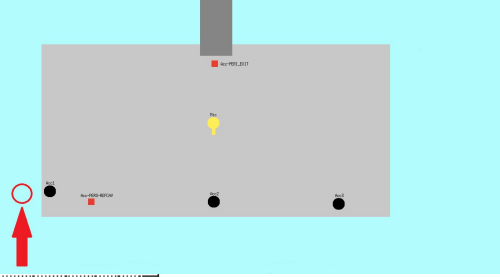
ACC Table2が設置してある定盤のすぐ下の床を叩いた時

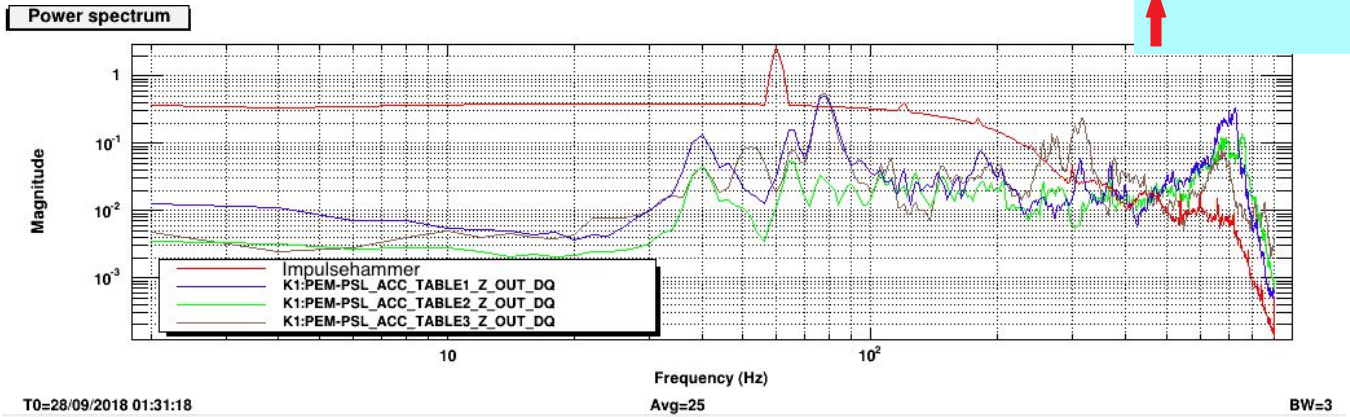


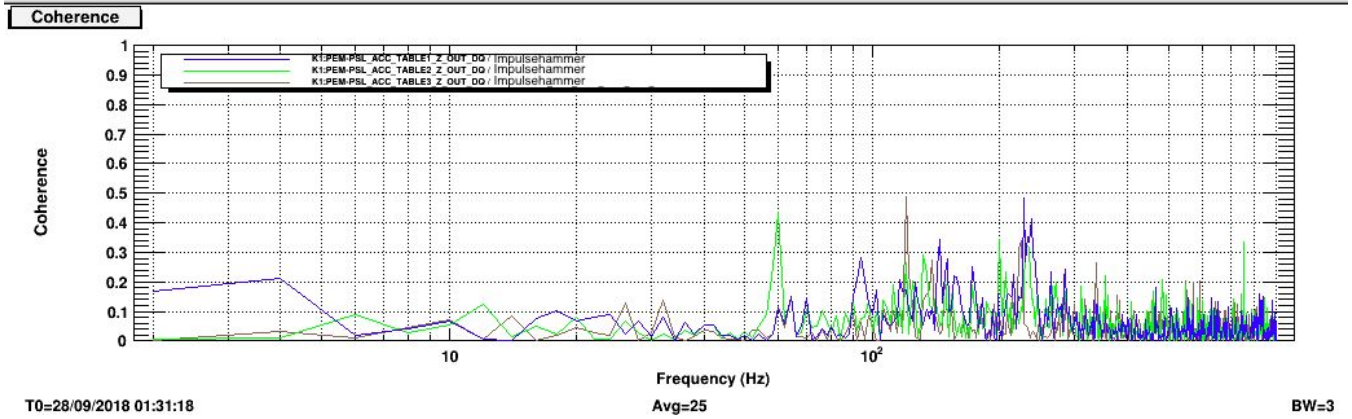




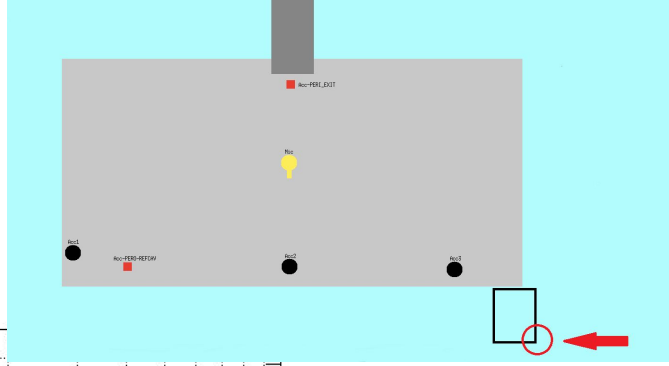
ACC Table1が設置してある定盤のすぐ下の床を叩いた時

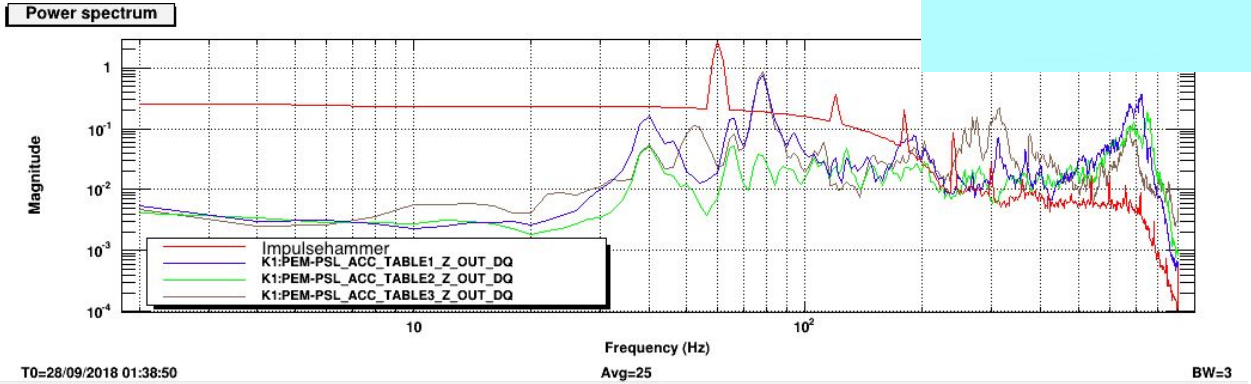


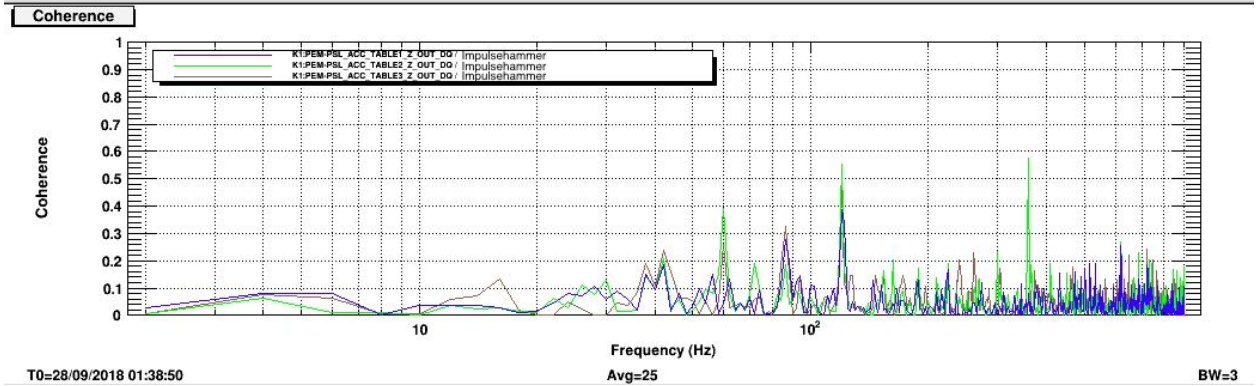




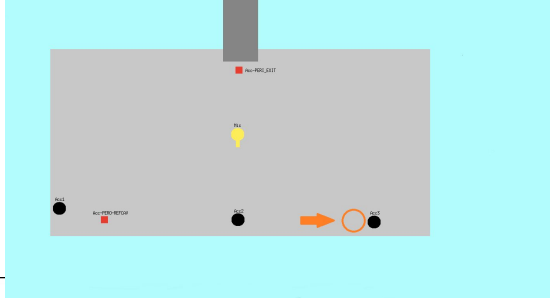
ラックの台座を叩いた時

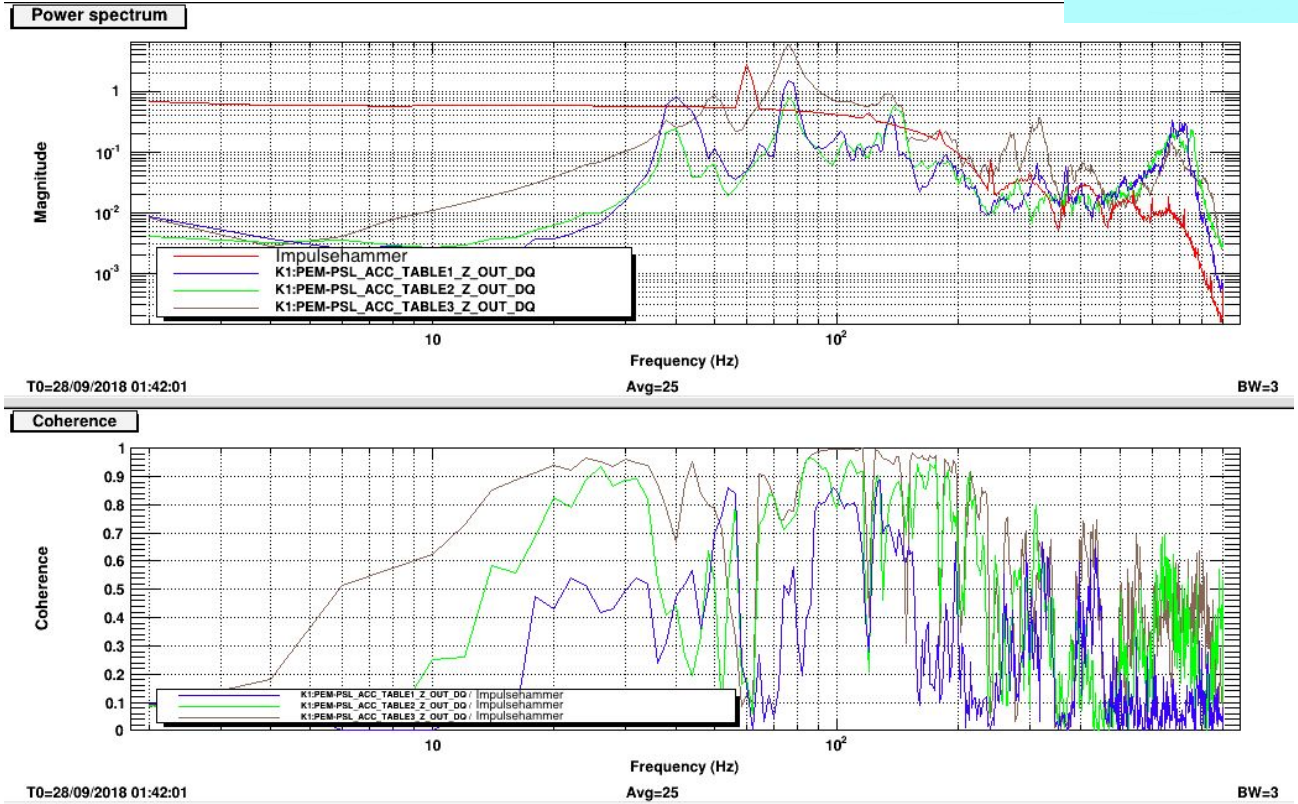




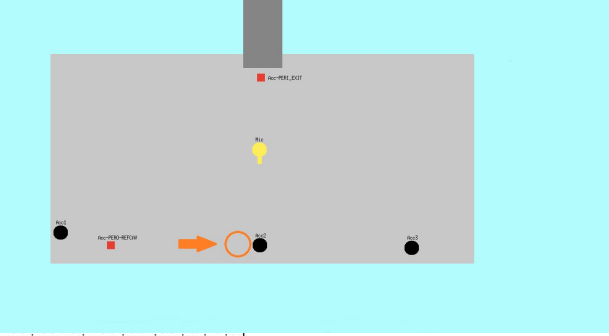


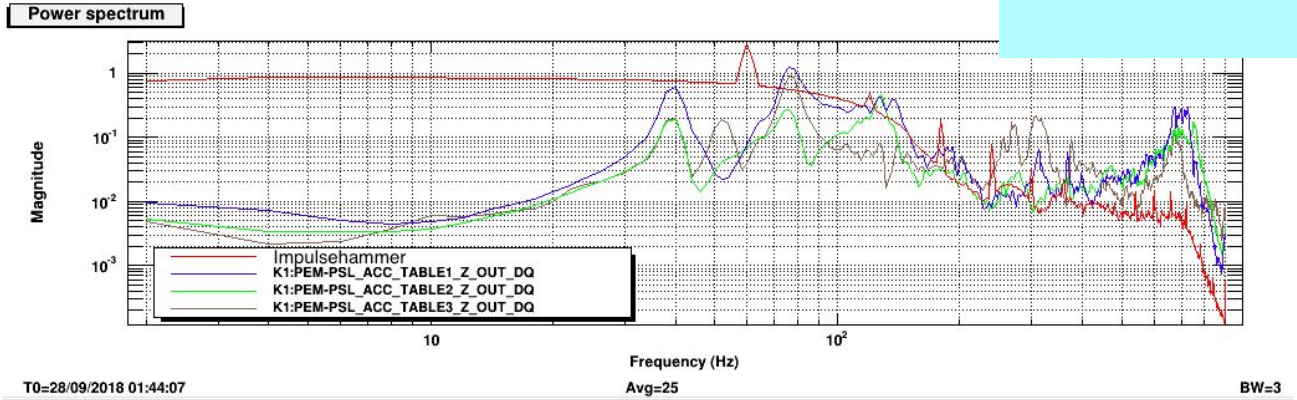
ACC Table3が設置してある定盤のすぐ下の脚を叩いた時

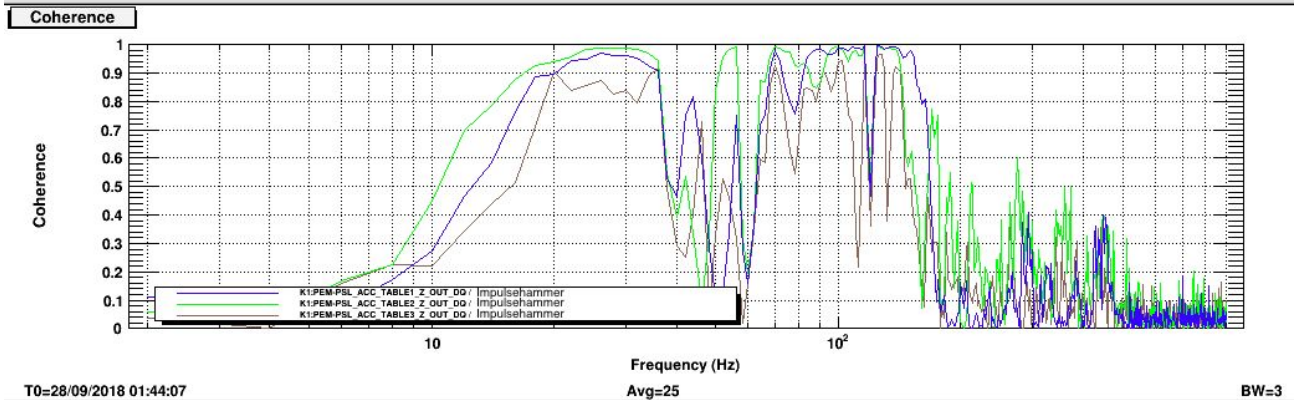




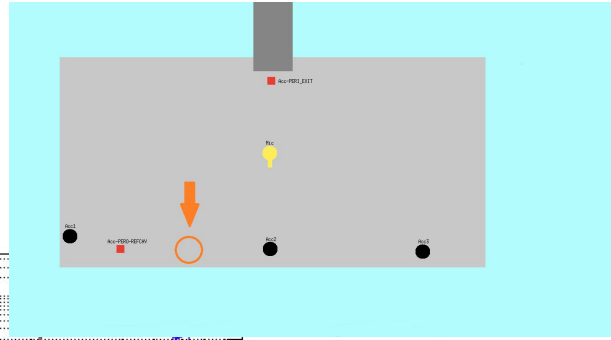
ACC Table2が設置してある定盤のすぐ下の脚を叩いた時

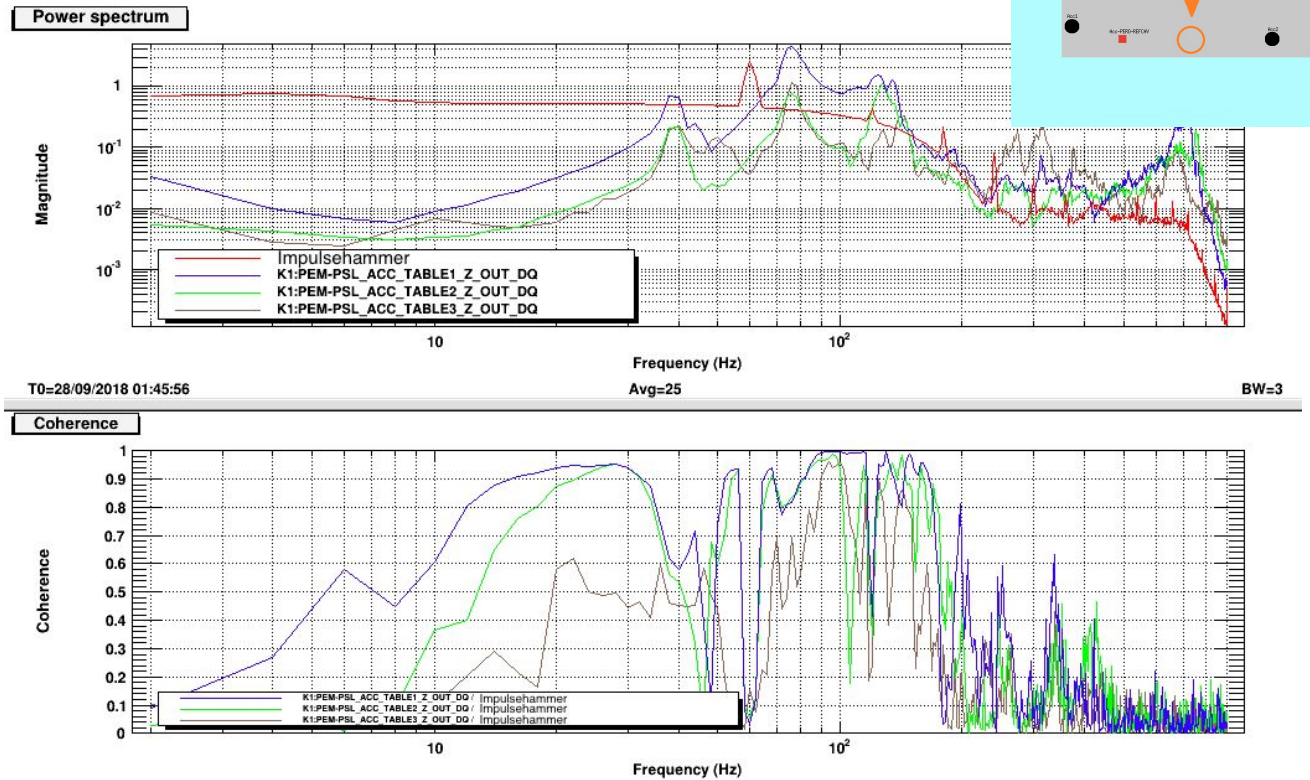




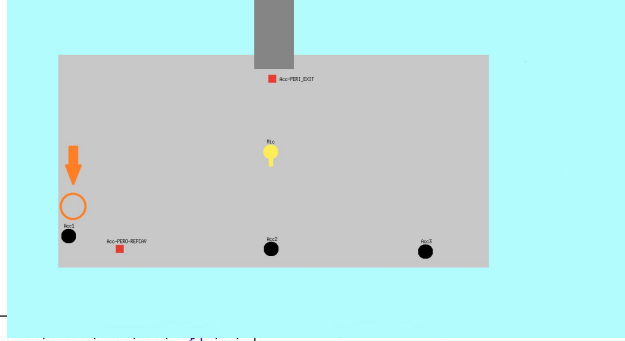


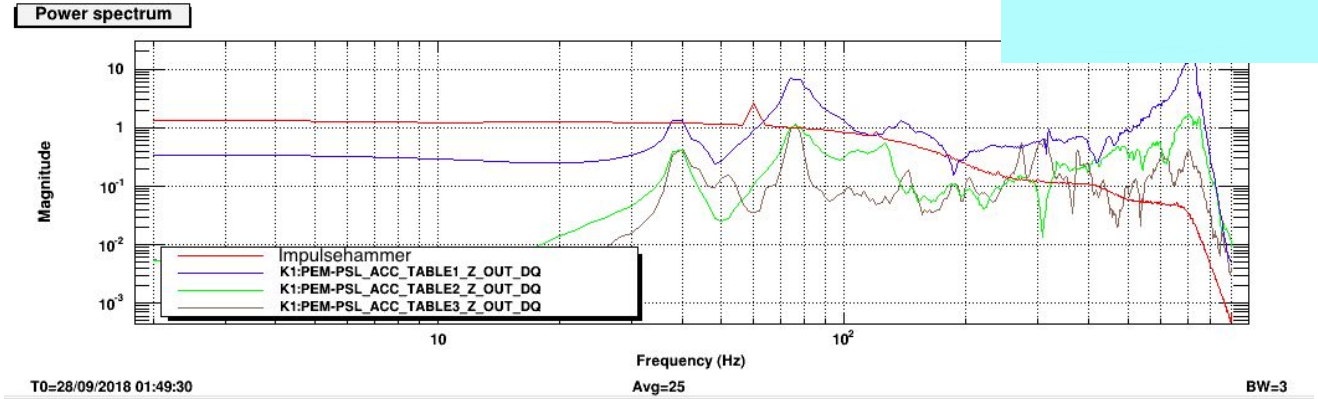
ACC Table1とACC Table2が設置してある定盤のすぐ下の脚の間を叩いた時

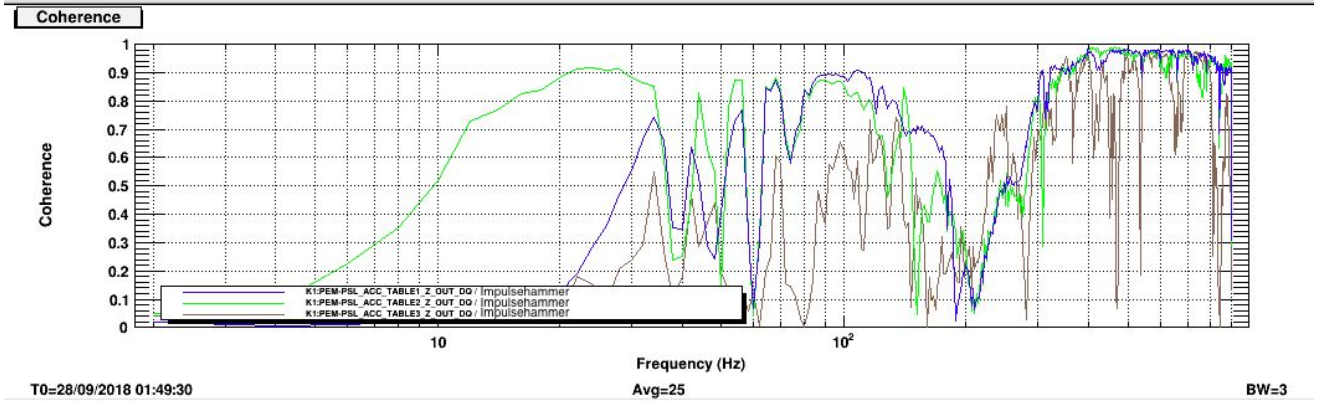




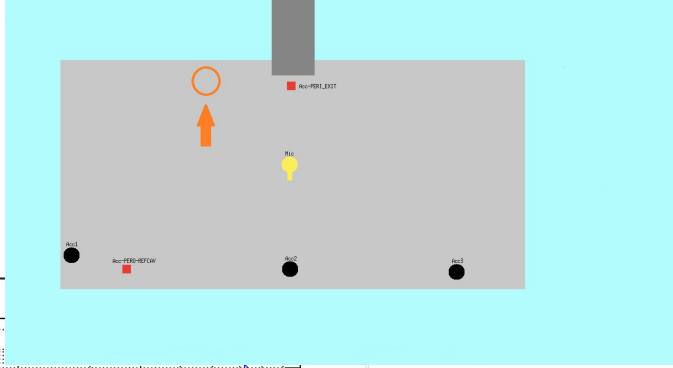
ACC Table1が設置してある定盤のすぐ下の脚を叩いた時

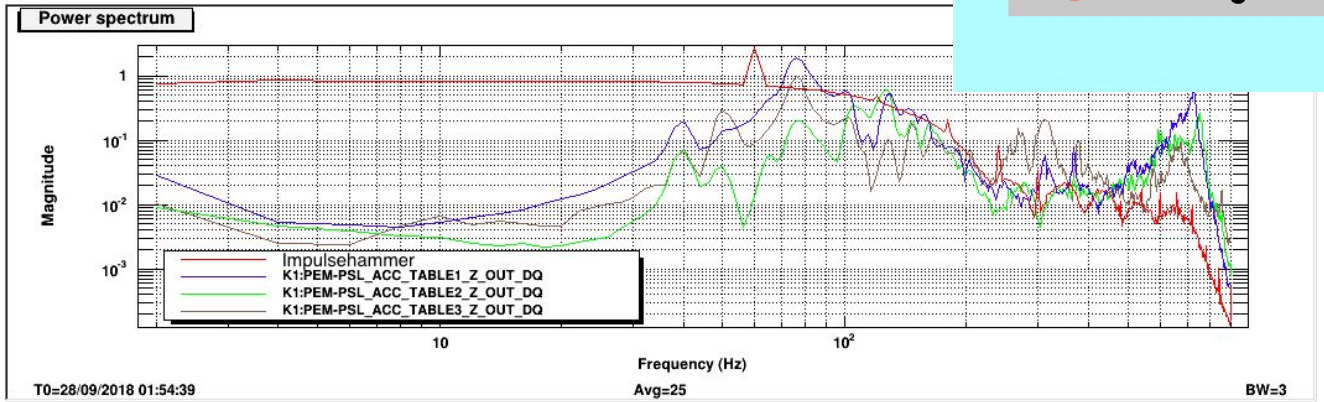


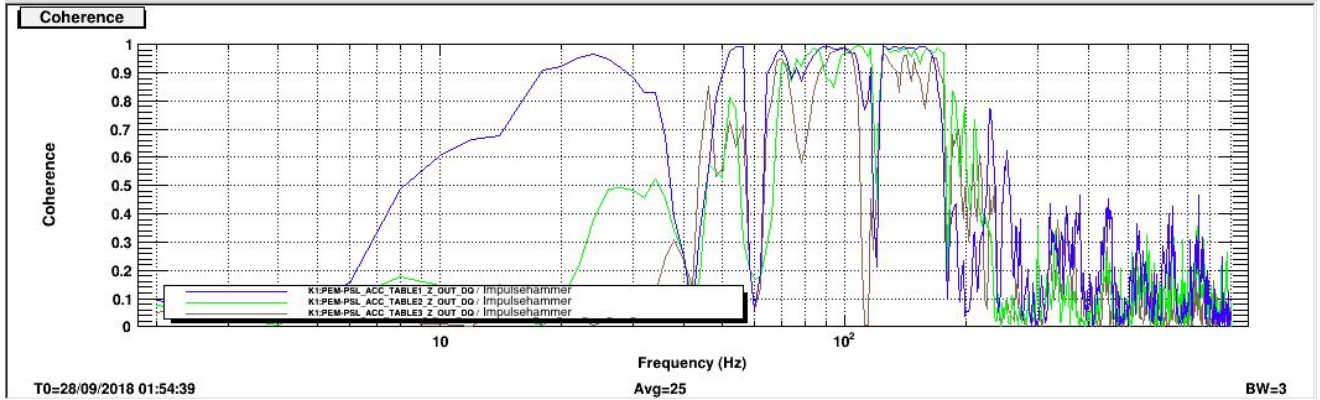




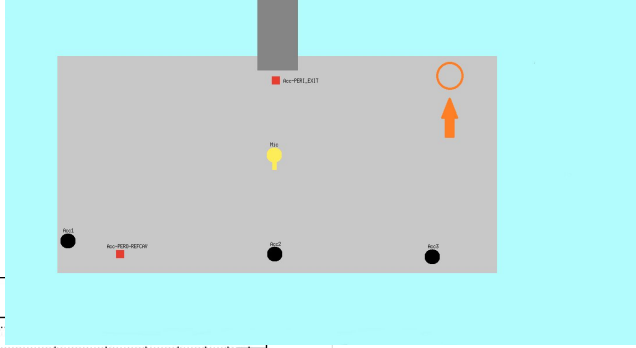
PSLroomダクトに向かって定盤左奥の脚を叩いた時

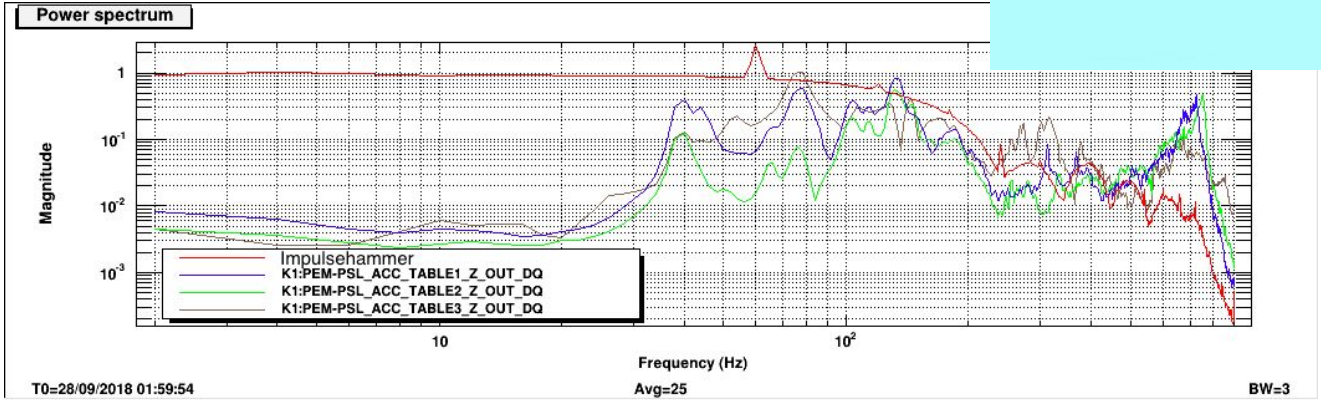


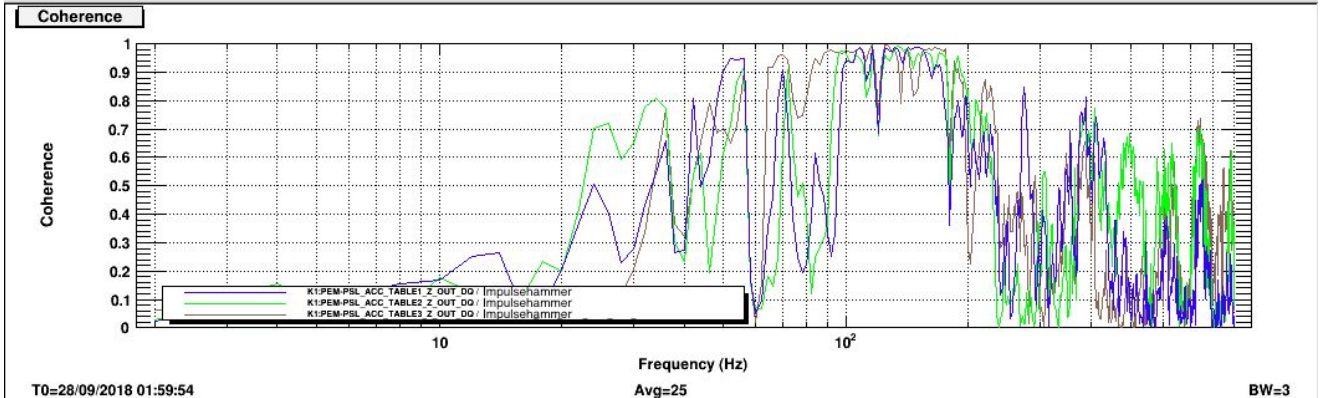




PSLroomダクトに向かって定盤右奥の脚を叩いた時

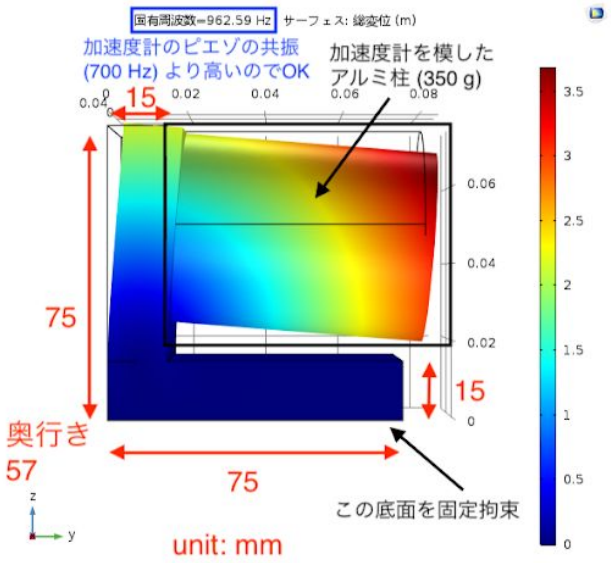






まとめ

・TEACの加速度計が高周波(700Hz付近)で反応している一方、KISTLERの加速度計はその周波数では反応が少ない傾向にある。

→TEACの加速度計を固定する用のL字の金具の共振周波数が962.59Hz、加速度計自体の共振周波数が約700Hz

・今回は床と定盤の脚を叩いたが、次回は定盤自体るとよりピークがハッキリしそう