

From: (null) 

Subject: The first results ( from Dr. Yanglei Zou of M-OSRP /Physics Dept. UH) of Q compensation without knowing, estimating or determining Q and without using or needing low frequency data

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Dear Sponsors, Colleagues and Friends,

Attached please find the first results from Dr. Yanglei Zou , M-OSRP, Physics Dept., UH, of a new ISS algorithm for **Q compensation without knowing , estimating or determining Q and without needing or using low frequency and zero frequency data.**

The first figure shows the two models one with Q and one without Q ( Q= infinity). The next figure ( on the left) shows the data from the model with Q , the middle figure shows that data after being processed by the **new** ISS Q without Q subseries, and the figure on the right shows data from the model that has no Q. The single trace comparison of this new algorithm show an effective Q compensation without knowing or needing Q and without low frequency data.

**Of course these results can be used to estimate Q ( which can have its own value) once you know how data with Q would look without Q.**

Previous ISS Q without Q algorithms **from our group** ( e.g., from Kris Innanen, Jose Eduardo Lira and Weglein)required low frequency data and in fact critically depended upon zero frequency data. The latter **data** requirement made those earlier approaches impractical. **The current approach reformulated the ISS Q compensation without Q task, avoiding the pitfall of the earlier approach and derives a new ISS Q compensation subseries that doesn't require or use low frequency data and has absolutely no interest in or need for zero frequency data.**

As mentioned previously this advance has immediate positive and consequential implication and application to electromagnetic ( EM) probes and all EM target identification interests and activities.

In the photos please find ( top photo, Yanglei Zou , middle photo, Yanglei Zou and Weglein, and bottom photo Yanglei and his colleagues ( left to right, Weglein, Dr. Chao Ma, Dr. Jim Mayhan, Professor Mark Meier, Dr. Yanglei Zou, Dr. Qiang Fu and Professor Fang Liu).

**The 2018 M-OSRP Annual Technical Review June 5-6 at UH, will review all projects within our program including, preprocessing for marine and offshore plays, choosing among tool box options: ISS free surface multiple elimination and SRME, and internal multiple elimination for removing multiples without damaging a proximal or interfering primary, Stolt CIII migration and RTM resolution comparisons for heterogeneous media, and Q compensation without Q.**

Look forward to staying in touch and seeing you at the 2018 M-OSRP Annual Technical Review June 5-6 at UH.

Warmest best regards,  
Arthur B. Weglein



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