Optimising marine seismic acquisition

Source encoding in blended acquisition and target-oriented acquisition geometry optimisation

Wu, S.

DOI
10.4233/uuid:6ed94a0a-200d-470c-80be-f6c7ab56f2af

Publication date
2020

Document Version
Final published version

Citation (APA)
Wu, S. (2020). *Optimising marine seismic acquisition: Source encoding in blended acquisition and target-oriented acquisition geometry optimisation*. [Dissertation (TU Delft), Delft University of Technology]. https://doi.org/10.4233/uuid:6ed94a0a-200d-470c-80be-f6c7ab56f2af

Propositions

accompanying the dissertation

OPTIMISING MARINE SEISMIC ACQUISITION

SOURCE ENCODING IN BLENDED ACQUISITION AND TARGET-ORIENTED ACQUISITION GEOMETRY OPTIMISATION

by

Sixue WU

1. In blended marine seismic acquisition, source encoding should be optimised for deblending and deghosting to improve data quality (this thesis).
2. Modelling-based acquisition analysis should be considered in seismic acquisition design if prior knowledge of the subsurface model is available (this thesis).
3. More advances should be made in acquisition innovations to keep up with the current processing and imaging techniques.
4. Future seismic acquisition should be automated.
5. Defining the right parameters is key to solving an inverse problem.
6. Quantum computers will change the way we define numerical problems.
7. Understanding the internet of things should be a compulsory subject in primary education.
8. Research doesn't argue with research; people argue with people.
9. Mathematics is an art motivated by beauty (G. H. Hardy).
10. The bothering concept about democracy is that the majority rule (the most common decision making approach) is based on a fallacy – a proposition must be true if most people believe it.

These propositions are regarded as opposable and defendable, and have been approved as such by the promoters, Dr. ir. G. Blacquière and Dr. ir. D. J. Verschuur.