

## Call for papers (Oct. 2015)

### Marine Geophysical Research - Special Issue

#### *Seafloor backscatter from swath echosounders: technology and applications*

Guest Editors: Geoffroy Lamarche<sup>1</sup> and Xavier Lurton<sup>2</sup>

<sup>1</sup> NIWA, Private Bag 14-901, Wellington 6241, New Zealand; [Geoffroy.lamarche@niwa.co.nz](mailto:Geoffroy.lamarche@niwa.co.nz)

<sup>2</sup> IFREMER, CS10070, 29280 Plouzané, France; [Xavier.lurton@ifremer.fr](mailto:Xavier.lurton@ifremer.fr)

#### Scope

Exploration, mapping and monitoring of the seafloor have vastly evolved over the last few decades since the introduction of multibeam sonars. In particular, backscatter data are used qualitatively and quantitatively for an increasingly wide variety of applications. However, engineers, operators, and scientists working on backscatter data recognize the need for better coherence and agreement on data acquisition, processing and interpretation.

In 2015 the Backscatter Working Group (BSWG) proposed the first set of guidelines for acquisition, processing and use of backscatter data (see <http://geohab.org/publications/>), and provided recommendations for further development of backscatter acquisition systems and processing software. This special issue of Marine Geophysical Research (MGR) follows on that work.

In this special issue, we welcome papers that present and discuss the variety of issues encountered by manufacturers, software developers, operators, scientists and end-users when working with backscatter data acquired from swath-mapping echosounders. In particular, we are seeking papers on the latest developments on:

- Technological achievements in sonar measurement of backscatter;
- Acquisition procedures, with a particular interest on sonar calibration;
- Data processing and interpretation;
- User requirement and novel applications;
- Applications such as habitat mapping, environment monitoring, or engineering.

We would particularly value contributions that test the recommendations of the BSWG and strongly encourage co-authorship from industry, software developers, scientists and end-users alike, to provide consensual research papers on the full potential of backscatter data. This MGR special issue will include review papers from the BSWG Guidelines' authors on the acquisition and processing of backscatter data as well as the requirements of end-users.

#### Timeline for submission

Feel free to contact the Guest Editors with title and brief outline of the paper content, to assess whether it would fit within the scope of this special issue.

The submission/publication process will be led by the Guest Editors and the MGR editorial team. Importantly, manuscripts will be published online upon acceptance for publication.

Please follow the journal submission procedure available on MGR Editorial Manager (EM): <https://www.editorialmanager.com/mari/default.aspx>.

The SI will be available in the drop-down menu in MGR's EM until 31 March 2016.

We anticipate that this will lead to a presentation of the special issue's content at the 2016 GeoHab Conference. The aim is to complete the MGR special issue by 30 September 2016.