

Backscatter Working Group

how can we ride the wave?

3 May 2016 - Winchester

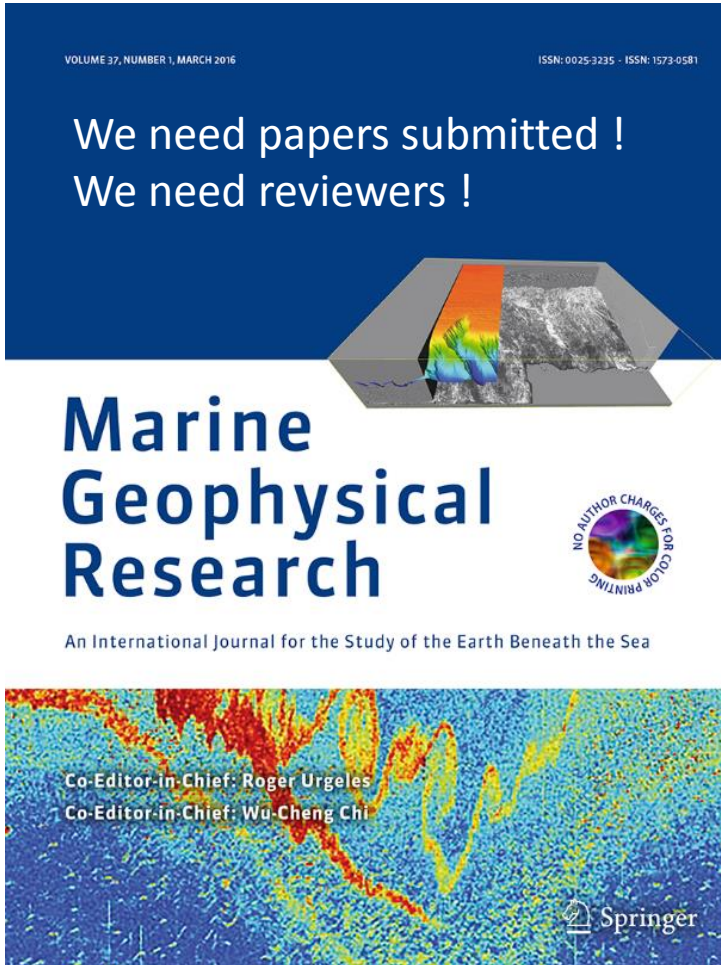
Agenda

Aim: *Formalize realistic and useful objectives for the short-to-medium term.*

- Update on BSWG
- MGR Special Issue
- Future activities/initiatives of the BSWG
- who does what?
- Communications issues
- Status of BSWG

WGN Special Issue : Seafloor backscatter from swath echosounders: technology and applications

- Guest Editors Geoffroy Lamarche (NIWA) & Xavier Lurton (Ifremer)
- Dead line for submission: **31 August 2016**



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We need papers submitted !
We need reviewers !

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An International Journal for the Study of the Earth Beneath the Sea

NO AUTHOR CHARGES FOR COLOR PRINTING

Co-Editor-in-Chief: Roger Urgeles
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Springer

1. Hillman, J. Validation of automated supervised segmentation
2. Brown, C. Backscatter R&D
3. Chand, S. Backscatter anomalies and relation to sediment thickness
4. Cooper, R. Development of bespoke routines
5. Daniell, J. Ground truthing of backscatter using AUV imagery
6. Eleftherakis, D. Azimuth dependence of backscatter
7. Fonseca, L. Multibeam backscatter analysis of glaciomarine sediments
8. Fonseca, L. Merging sidescan sonar data with bathymetry for backscatter analysis
9. Gutierrez, F. Calibrated backscatter with a phase-measuring system.
10. Ierodiaconou, D. Ground-truth data and bathy derivatives.
11. Kruss, A. Multibeam echosounder backscatter variability
12. Ladroit, Y. Calibration of a 30-kHz multibeam echosounder.
13. Laferriere, A. Supervised segmentation using drop-camera videos
14. Lamarche, G. High-redundancy multibeam backscatter coverage
15. Lamarche, G. Backscatter measurements - Issues and Challenge.
16. Lucieer, V. Seafloor backscatter user's needs and expectations.
17. Lurton, X. Recommendations for future sonars and functionalities.
18. Mashkoo, M. Multibeam Sonar Seafloor Backscatter Measurement Uncertainty
19. Mitchell, G. Seep calibration site on a new EM302
20. Montereale Gavazzi, G. Monitoring Benthic Habitats using MBES
21. Parnum, I. Comparing methods for correcting incidence angle
22. Rice, G. Seafloor Backscatter Acquisition: best practice guide.
23. Schimel, A. [TBC]
24. Weber, T. Methods for backscatter calibration of multibeam echosounders
25. Siwabessy, J. [TBC]

Future activities/initiatives of the BSWG

Short-to-medium term actions - who does what?

- **Regular & full update** of the Guidelines and Recommendations
 - ➔ probably too ambitious & not realistic;
- Dedicated **update/addition of one part/theme**
 - ➔ more realistic; but need to decide what, when and who;
 - ➔ possible new themes: water column, side-scan sonar, ...
- **Chap 6 is being reviewed** and should end up being published in a more complete form with more contributors
- *Note: we got very few (if any) responses/comments on the Guidelines...*

Future activities/initiatives of the BSWG

Short-to-medium term actions - who does what?

1 - What do we **need** today?

- More modelling - Different modelling
- Are classical/physical approaches appropriate
- How can they be linked to users' expectations and needs

2 - Better definition/analysis of **users expectations**

- Emergence of new applications implying other perceptions
- Need for training & awareness-raising of users

3 - Different **sonar systems**

- Dedicated to BS and/or with new functionalities
- Can we expect a more proactive role to be played by industry constructors?

4 - Improved **methodologies** for operators

- Calibration procedures, reference area - patch test
- New processing techniques - Standardization of some processing steps
- Proactive role of SW developers

Communications

- A wiki?
- More emails? For what ?
- What distribution for the Guidelines?
- Referencing the Guidelines

Status of the BSWG

- Geohab umbrella is working well and fine for the time being



BSWG head:

Geoffroy has done an effective promotion of the group.

And Xavier is preparing his coming back...



Thank you Geoffroy and Xavier for all the work done !