2012年掘削、国際学会等の動向

新領域融合研究センター/国立極地研究所,植竹淳

極域アイスコア掘削

1: North Greenland Eemian Ice drilling (NEEM)

デンマーク大学による、グリーンランド深層アイスコア計画。 2012年8月に掘削終了 岩盤まで掘削

2: West Antarctic Ice Sheet (WAIS) Divide Ice Core

アメリカによる南極での深層掘削計画

2011年12月31日

掘削深:3405.0077m(アメリカ単独としては南極で最深)

http://waisdivide.unh.edu/

3: Vostok Ice Core

Subglacial lakeの層まで (3768m) 掘削が進むアイスコアとしては最長記録2011年2月5日将来的には生物サンプリングを見据えた、ロボットの投入などを検討している??

4:南極ドームA (崑崙基地)深層掘削計画

中国による南極深層掘削

現状:深層掘削への関連作業がスタート (深層掘削システムと周辺装置の設置)

今後の予定:

来シーズン?:深層掘削の開始

3シーズンで深層掘削(約3100mぐらい??)

参加報告

1: 26th International Forum for Research into Ice Shelf Processes (FRISP)

棚氷に関する研究フォーラム 6月12-14日(スウェーデン・ストックホルム)

棚氷と海洋との相互作用をテーマにした歴史の長い研究コミュニティー 64のアブストラクト、72名の参加者(例年から倍増) 南極の棚氷が中心であったが、今回からグリーンランドも。 日本人研究者4名(うち3名は海外機関に所属)

2: International Symposium on Glaciers and ice sheets in a warming climate

国際雪氷学会

6月25-29日 (アラスカ・フェアバンクス)

約280のアブストラクト約250人の参加者で盛況 Almut IkenがSeligman Crystalを受賞 日本からは氷河・氷床、海洋関係者10人が参加

1: International Symposium on Ice Core Science, IPICS

10月1-5日 (Giens, フランス)

deep drillings such as EPICA, WAIS, NEEM, TALDICE,... but also shallow drillings) in Antarctica and Greenland. Other ice core drilling projects conducted in non-polar glaciers or in other Arctic sites are also welcome.

2: International Conference on the Cryosphere: Changes, Impacts and Adaptation

11月10-12日 (Sanya, 中国)

発表申込は9月30日まで

TOPICS (寒冷地研究全般)

- 1. Climate change in cold and arid regions
- 2. Observed changes in cryosphere (including remote sensing of cryospheric changes)
- 3. Climatic and environmental record in the cryosphere
- 4. Cryosphere and sea level
- 5. Cryosphere and water resources
- 6. Cryosphere and ecology
- 7. Cryospheric simulation and projection
- 8. Cryospheric hazards
- 9. Adaptation of cryospherc changes and regional sustainable development
- 10. Cold regions engineering

3: 第3回 国際北極シンポジウム

ISAR3 (Third International Symposium on the Arctic Research) 2013年1月14-17日 (東京, 日本科学未来館) 発表申込は9月27日まで

General sessions

- (G1) Atmospheric science
- (G2) Ocean and sea ice
- (G3) Hydrology, permafrost and snow cover
- (G4) Ice sheets, glaciers and ice cores
- (G5) Terrestrial ecosystem
- (G6) Marine ecosystem
- (G7) Interdisciplinary modeling studies

Special sessions

- (S1) Polar (Arctic) amplification in global warming
- (S2) Changes in water and carbon cycles of terrestrial ecosystem on permafrost in a warming Arctic
- (S3) Changes in the Greenland ice sheet in the context of interactions with the atmosphere and the ocean
- (S4) International cooperation on Arctic observation and research
- (S5) GRENE Arctic project
- (S6) Monitoring of the Arctic environment

4: International Symposium on Changes in Glaciers and Ice Sheets: observations, modelling and environmental interactions

2013年7月28日-8月2日(北京. 中国)

Changes in mountain glaciers have direct impacts on human activities, especially in mid-latitude regions, where high-altitude snow and ice contribute to the hydrological controls of human activity. Therefore, the symposium specifically includes topics pertinent to the Earth's 'Third Pole'.

TOPICS(極域氷河、氷床以外に山岳氷河まで幅広く)

- 1. Assessment of the current state of ice sheets and glaciers,
- 2. Remote sensing methodologies and techniques for providing critical information on glacier and ice sheet profiles,
- 3. Ground-based field studies of glacier and ice sheet change
- 4. Ice-core records of past change that is relevant to understanding the current changing states of ice sheets and glaciers both in polar and non-polar environments; special emphasis will be placed on ice-core records from Asia
- 5. Subglacial and proglacial sediment
- 6. Glacier and ice sheet mass balance, including glacier meteorology
- 7. Assessment of changing ice in the 'Third Pole'
- 8. Modelling the processes of glacier and ice-sheet change
- 9. Projection and prediction of changing glaciers and ice sheets, response to climate change, ice-atmosphereocean iterations.
- 10. Glacio-hydrological processes that have a bearing on accelerating current rates of ice-sheet and glacier change
- 11. Hazards and societal impacts relating to changing glaciers and ice sheets
- 12. General glaciology: all topics relevant to glaciological science are welcome at the symposium http://iscgis.csp.escience.cn/dct/page/1

5: International Symposium on Radioglaciology: advances in radio frequency, microwave and digital technologies

2013年9月9-13日 (Lawrence, カンサス, アメリカ)

TOPICS(レーダーやリモセン関連)

- 1. Radars and signal processing techniques for sounding and imaging of polar ice-sheets.
- 2. Ultra-wideband radar technology and innovative polar research applications.
- 3. Recent observations and results over the Greenland and Antarctic ice sheets.
- 4. Enhancements of radar measurements needed for improving next-generation ice-sheet models.
- 5. Refining algorithms for basal condition assessment.
- 6. Addressing the gap in radar capabilities for surface-based observations using radar/seismic intercomparisons.
- 7. Remote sensing techniques for smaller ice masses and ice masses in logistically challenging areas outside the poles. Additional topics may be added on the basis of request and abstract submissions. Questions and ideas can be referred to members of the science steering committee.

サブミッションはまだなので詳しい情報は下記に問い合わせてください。

Secretary General, International Glaciological Society

Scott Polar Research Institute

Lensfield Road

Cambridge, CB2 1ER, UK

Tel: +44 (0)1223 355 974

Fax: +44 (0)1223 354 931

E-mail: igsoc@igsoc.org

https://www.cresis.ku.edu/meetings/conferences