

**Program of the Fifth International Workshop on Ice Drilling Technology 2000,
30 November – 1 December 2000, Nagaoka**

Session 1: Shallow drilling/Dry hole drill, (chair: Nobuhiko Azuma)

1. Development of ultra-clean drill technology for trace metal sampling. Erik Blake (Canada)
2. A review of high altitude coring operations. Bruce Koci (USA)
3. Ice core quality and drilling methods. Vin Morgan (Australia)
4. Ice core drilling at Southern Patagonia Icefield-development of a new portable drill and the field campaign in 1999. Shiro Kohshima (Japan)

Session 2: Intermediate drilling, (chair: Niels Gundestrup)

5. Investigation of the ice drilling process with near-bottom inverse circulation of air. Boris Kudryashov (Russia)
6. Performance of intermediate depth portable ice core drilling system on polar and temperate glaciers. Victor Zagorodnov (USA)
7. Drilling by electromechanical method on the Academiya Nauk glacier. Severnaya Zemlya Archipelago. Lev Savatyugin (Russia)
8. The Hans Tausen intermediate ice core drill. Sigfus Johnsen (Denmark)

Session 3: Deep drilling/Electromechanical drill, (chair: Vin Morgan)

9. Deep ice coring at Vostok Station with electromechanical drill designed at St. Petersburg Mining Institute. Nikolay Vasiliev (Russia)
10. The EPICA deep ice core Drill. Sigfus Johnsen (Denmark)
11. The EPICA drill dual action pump. Niels Gundestrup (Denmark)
12. Sticking deep ice core drills: Why and how to recover. Niels Gundestrup (Denmark)
13. Ice drilling complications. Victor Zagorodnov (USA)

Session 4: Deep drilling/Electromechanical drill, (chair: Sigfus Johnsen)

14. Some thoughts on deep core drilling systems. Herby Ueda (USA)
15. Deep ice core drilling at Dome Fuji, Antarctica. Yoshiyuki Fujii (Japan)
16. Improvements of the JARE deep ice core drill. Akiyoshi Takahashi (Japan)
17. Hole fluids for deep ice core drilling. Pavel Talalay (Russia)

Session 5: Hot water drilling/Ongoing drilling project, (chair: Yoshiyuki Fujii)

18. Evolution of the AMANDA drill to a production drill for ICECUBE Bruce Koci (USA)
19. The access drill, a drill for providing small diameter holes to great depths. Bruce Koci (USA)
20. Hot water drilling on the Amery Ice Shelf, East Antarctica. Alan Elcheikh (Australia)
21. The EPICA deep drilling programs. Laurent Augustin (France)
22. Projected drill and science trench for the deep drilling EPICA/Dronning Maud Land, Antarctica. Frank Wilhelms (Germany)

Session 6: Ongoing/Future drilling projects (chair: David Fisher)

23. Berkner Island, Antarctica: planning for ice core drilling to the bedrock. Robert Mulvaney (UK)
24. A new deep ice coring program at Dome Fuji, Antarctica. Hideaki Motoyama (Japan)
25. A project of penetration and exploration of sub-glacial Lake Vostok, Antarctica. Sergey Verkulich (Russia)
26. Environmental aspects of subglacial lakes study by bore-hole drilling. Pavel Talalay (Russia)
27. A proposal for penetration and sampling of a subglacial lake at South Pole, Antarctica. Erik Blake (Canada)

Session 7: Borehole logging/Ice core processing (chair: Erik Blake)

28. Drilling/traversing on the Mars North Ice Cap. David Fisher (Canada)
29. Issues in subsurface exploration of ice sheets. Lloyd French (USA)
30. The EPICA borehole logger. Laurent Augustin (France)
31. Measurements of radar wave speeds in the ice sheet at Dome-F using a down-hole radar target technique. Shuji Fujita (Japan)

Session 8: Ice core processing (chair: Erik Blake)

32. New DEP-gamma-density bench tested during the EPICA Dronning Maud Land field campaign 1997/8. Frank Wilhelms (Germany)
33. Ice core processing of the Dome Fuji station core, Antarctica. Shuji Fujita (Japan)

Session 8: Ice core Quality/Physical Properties of ice (chair: Jakob Schwander)

34. The effect of hydrostatic pressure on crack formation in ice. Atsushi Miyamoto (Japan)
35. Microscopic observations on microtomed surface of ice. Hitoshi Shoji (Japan)
36. Ice cutting under high liquid pressure and low temperature, and endurance test of cutter edges. Hideki Narita (Japan)
37. Measurement of drag force of a drill moving in the liquid filled borehole. Yoichi Tanaka (Japan)

Session 9: Drill camp operation and logistics (chair: Hitoshi Shoji)

38. Design, transport, construction, and operation of the summer station for ice-drilling in Droning Maud Land. Frank Wilhelms (Germany)
39. Intermediate depth ice core drilling support systems: power generators and shelters. Victor Zagorodnov (USA)
40. Construction of a drill testing tower for the temporal use. Yoichi Tanaka (Japan)
41. Construction of Dome Fuji Station in East Antarctica. Shuhei Takahashi (Japan)

Session 10: Drilling and related problems (chair: Niels Gundestrup)