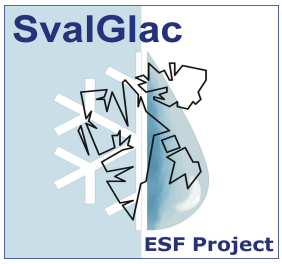
Consiglio Nazionale delle Ricerche

Istituto per le Applicazioni del Calcolo "Mauro Picone"

Outline of the activities developed by the Italian group



1st year, by 10-10-'10 (2nd SC meeting, Gdynia)

- collection of papers from literature on the study of subglacial lakes in polar regions
- collection of the existing mathematical models for ice dynamics in the cases of temperate, cold and polythermal ice with focus on the temperate case
- study of the accumulation/ablation law at the air/ice interface (dependence of parameters from climate/other local factors)
- study of the interaction between sliding at the ice/bedrock interface and ice/water phase transition

- computational code: construction of the logical (nested) structure of the blocks, chioce of thevisualization tool, treatment of irregular boundaries within discretization of the differential system of equations, etc.

Up-grade of the coordination plan with other working groups during Gdynia meeting: fixed the time plan with the Spanish team regarding the release of the initial condition for our study case (geometrical domain included) (scheduled March 2011), new GPR profiles in Amundsenisen area planned to be collected during the next spring campaign by the Polish and Spanish teams, as well as glacier surface velocity estimates via repeated differential GPS measurements by the Polish team.

Italian team: Daniela Mansutti, Edoardo Bucchignani, Alessandro Forieri, Maria M. Cerimele, Sauro Succi, Giuseppe Pontrelli.