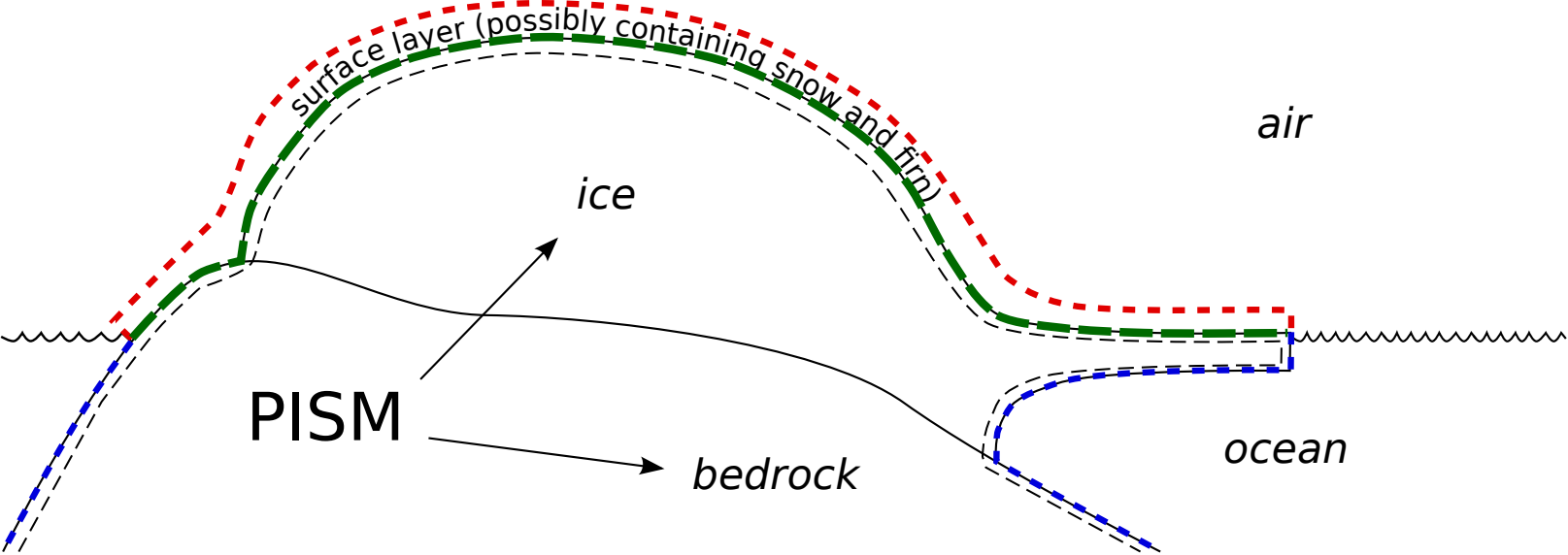
surface layer (possibly containing snow and firn)
air
ice
PISM
bedrock
ocean