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## Simulation of Aurora basin, East Antarctic

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The Aurora basin includes several fast-flowing glaciers (e.g. Totten and Dalton) and has large subglacial areas below sea level, which makes its study an essential part of evaluating the stability of East Antarctic against ocean warming. We use the 3D full-Stokes ice flow model Elmer/Ice to investigate the dynamic processes taking place in this basin. The spatial pattern of basal friction is deduced by inverse method from observed surface velocity. Particular focus is in the thermal condition at the bedrock. We further project the evolution of this basin during the 21st century with parameterized sub-ice shelf melting based provided by high resolution ocean models.