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# ***Interactive comment on “The Gregoriev Ice Cap length changes derived by 2-D ice flow line model for harmonic climate histories” by Y. V. Konovalov and O. V. Nagornov***

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The comment was uploaded in the form of a supplement:

<http://www.solid-earth-discuss.net/1/C36/2010/sed-1-C36-2010-supplement.zip>

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Interactive comment on Solid Earth Discuss., 1, 55, 2009.

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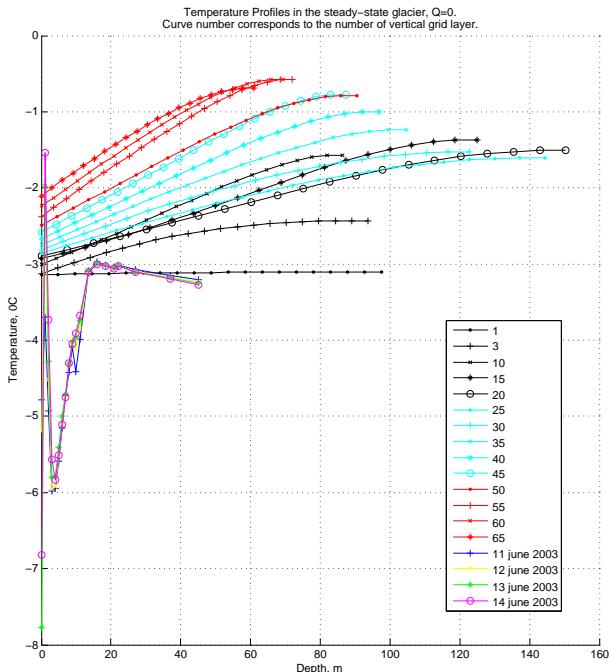
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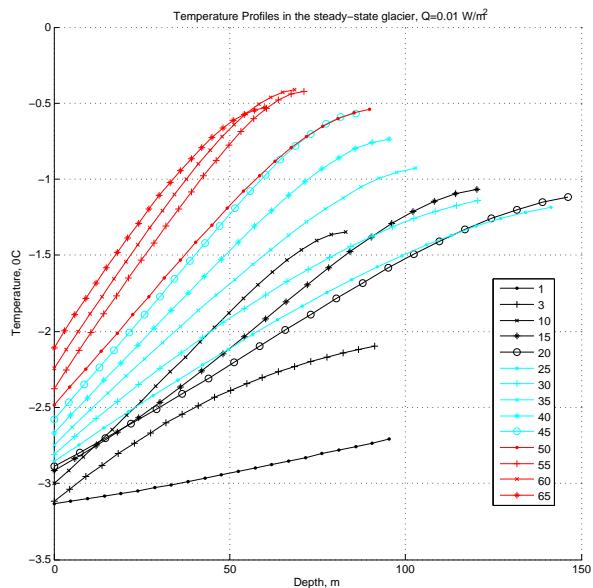
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**Fig. 1.** Temperature profiles in the steady-state glacier at different distances from the summit in the case of zero heat flux at the base.

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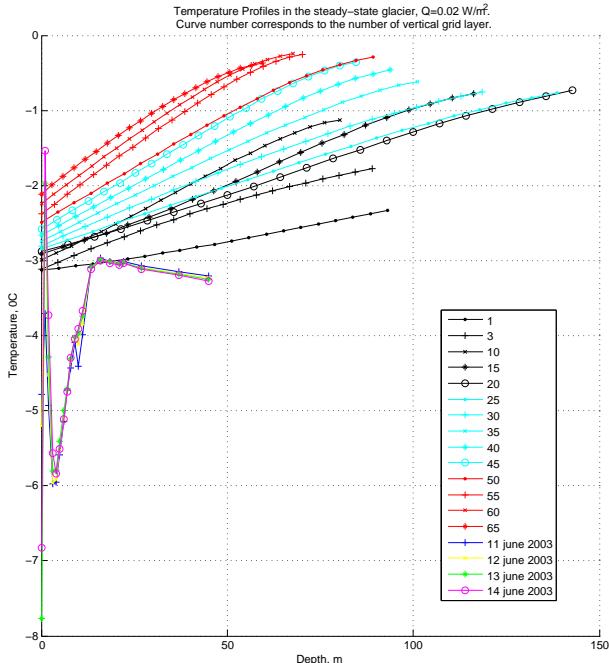
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**Fig. 2.** Temperature profiles in the steady-state glacier at different distances from the summit in the case of  $Q=0.01 \text{ W/m}^2$ .

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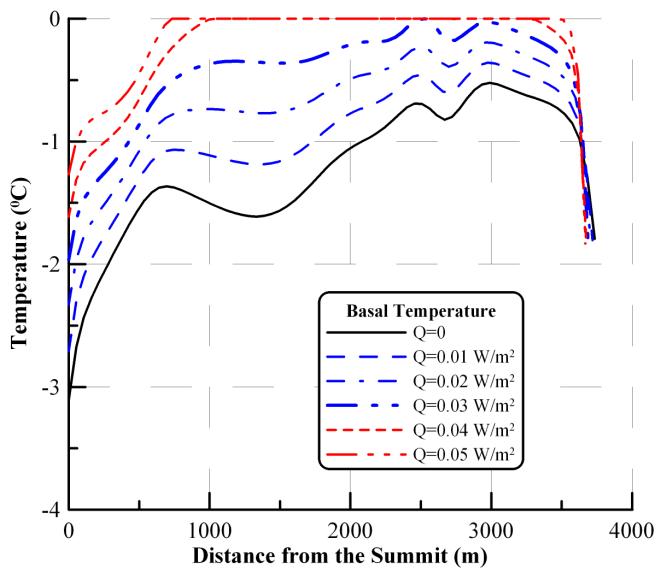
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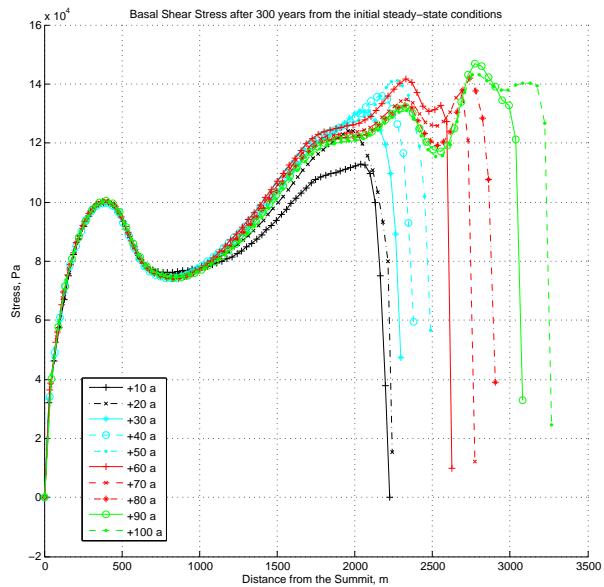


**Fig. 3.** Temperature profiles in the steady-state glacier at different distances from the summit in the case of  $Q=0.02 \text{ W/m}^2$ .

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**Fig. 4.** Basal temperature distributions along the flow line in the steady-state glacier obtained for different basal heat flux values.

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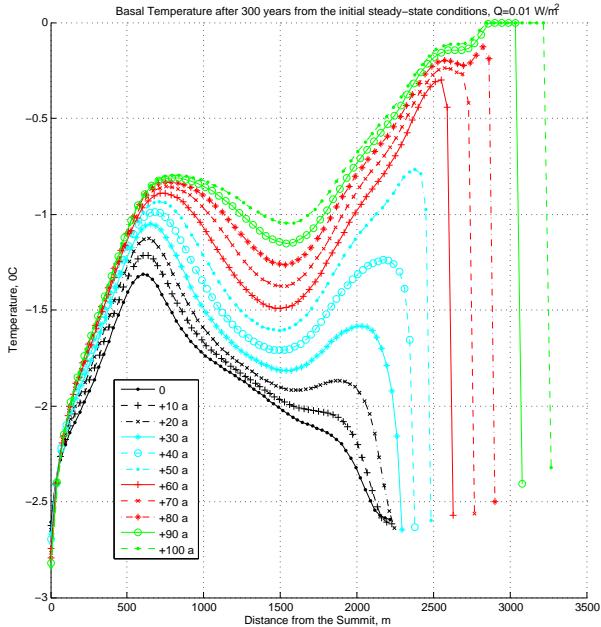
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**Fig. 5.** Basal shear stress distribution along the flow line for  $t$  in the range 300..400 years of harmonic climate history with 500-years periodicity (glacier advance).

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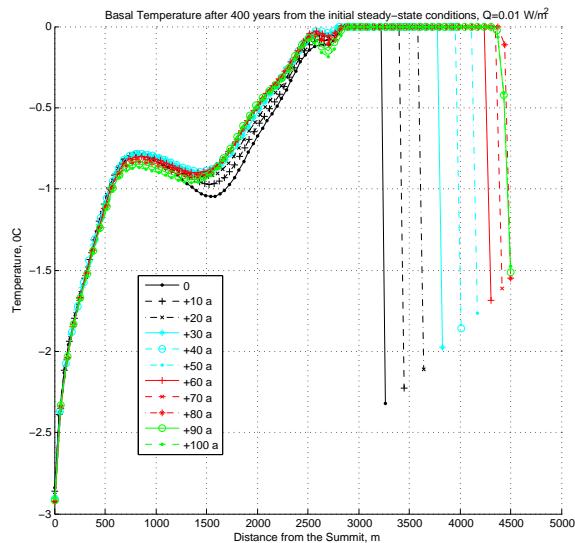
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**Fig. 6.** Basal temperature distribution along the flow line for  $t$  in the range 300..400 years of harmonic climate history with 500-years periodicity (glacier advance) in the case of  $Q=0.01 \text{ W/m}^2$ .

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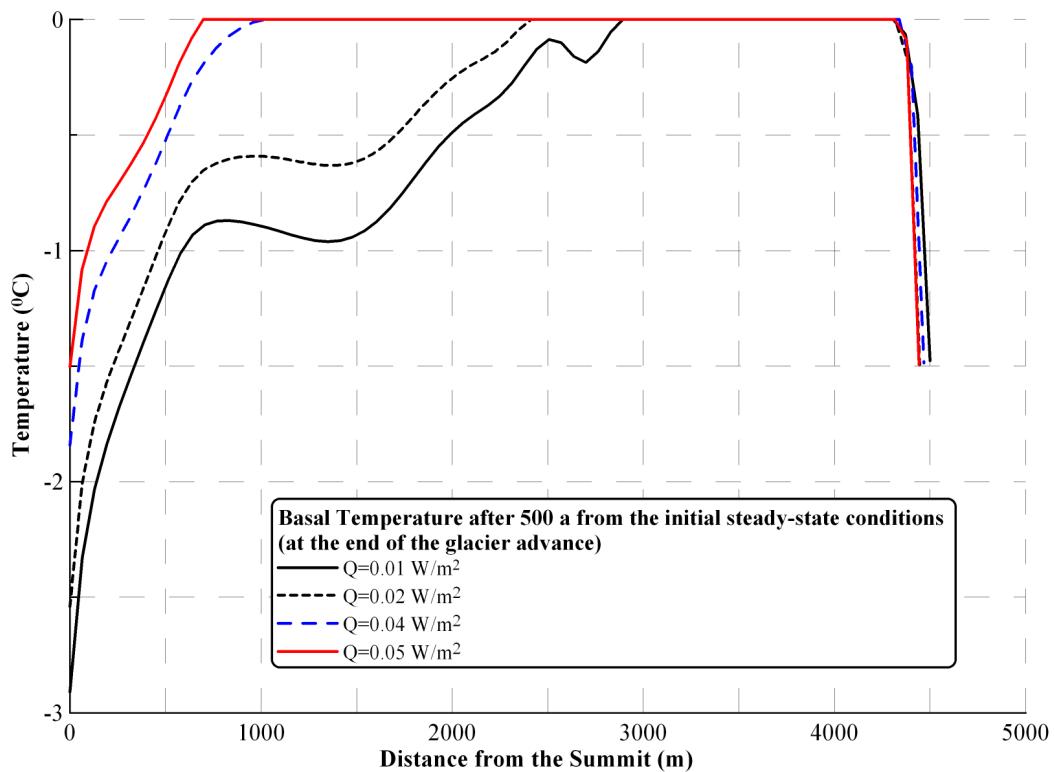
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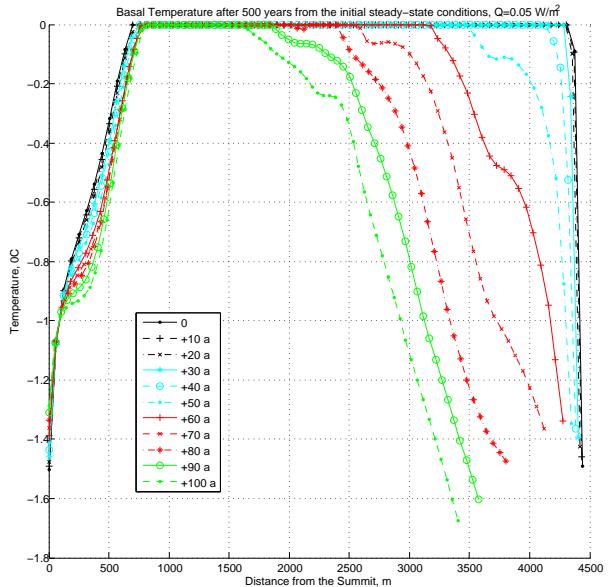
**Fig. 7.** Basal temperature distribution along the flow line for  $t$  in the range 400..500 years of harmonic climate history with 500-years periodicity (glacier advance) in the case of  $Q=0.01 \text{ W/m}^2$ .

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**Fig. 8.** Basal temperature distributions along the flow line after 500 years from the steady-state conditions obtained for different basal heat flux values.

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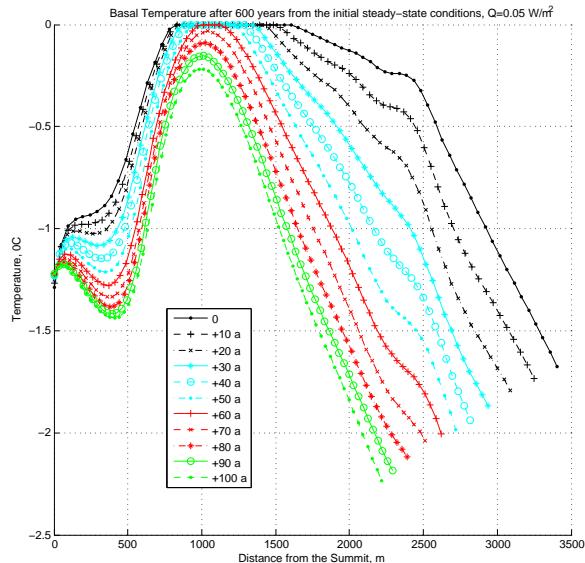
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**Fig. 9.** Basal temperature distribution along the flow line for  $t$  in the range 500..600 years of harmonic climate history with 500-years periodicity (glacier retreat) in the case of  $Q=0.05 \text{ W/m}^2$ .

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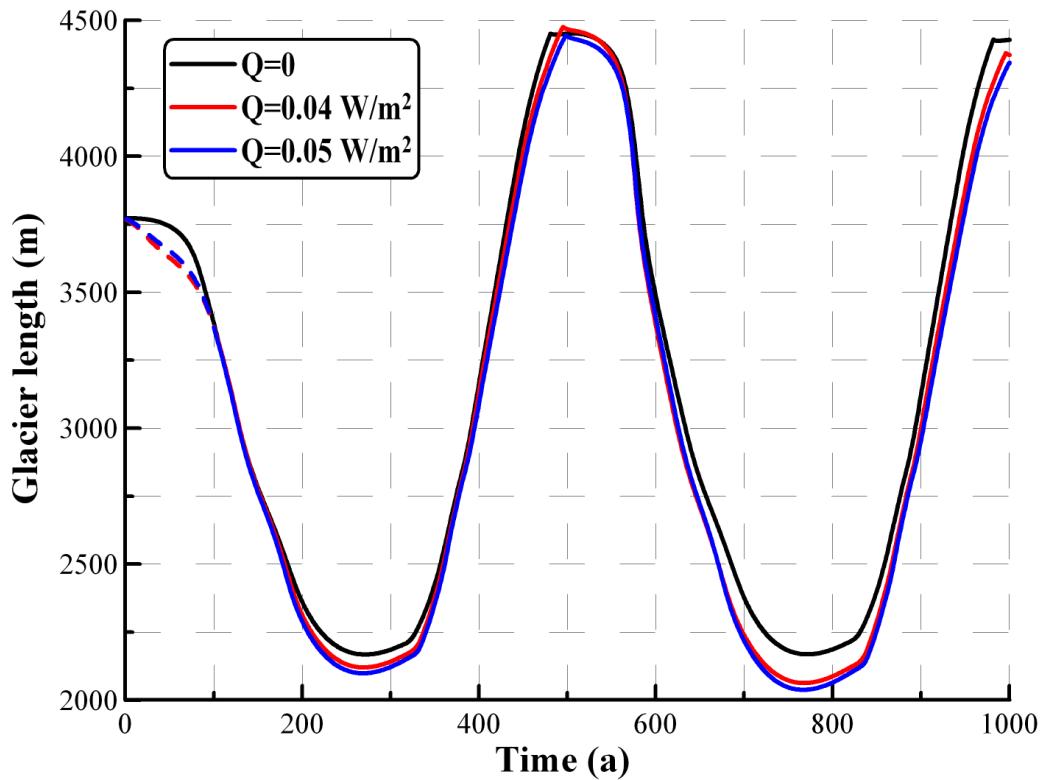
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**Fig. 10.** Basal temperature distribution along the flow line for  $t$  in the range 600..700 years of harmonic climate history with 500-years periodicity (glacier retreat) in the case of  $Q=0.05 \text{ W/m}^2$ .

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**Fig. 11.** Glacier length histories obtained for different basal heat flux values.

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