

## **Versions of the schwarz lemma for domain moments and the torsional rigidity**

Abramov D., Avkhadiiev F., Giniyatova D.  
*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

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### **Abstract**

The main result of this paper is analogues of the Schwarz lemma for the torsional rigidity and the conformal moment of inertia of simply connected domains. Moreover we obtain Schwarz-Pick type inequalities for these quantities and consider some generalizations and applications. © 2011 Pleiades Publishing, Ltd.

<http://dx.doi.org/10.1134/S1995080211020028>

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### **Keywords**

conformal moment of inertia, isoperimetric inequalities, Schwarz lemma, Schwarz-Pick type inequalities, torsional rigidity