

## **Isoperimetric inequalities for conformal moments of plane domains**

Avkhadiev F., Salahudinov R.

*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

---

### **Abstract**

We prove a new sharp inequality for norms in weighted Bergman space. This inequality is then used to derive isoperimetric inequalities for geometric functionals which are closely related to the torsional rigidity of a simply connected domain.

---

### **Keywords**

Isoperimetric inequality, Moment of domain, Weighted Bergman space