

## NOTE ON GRÜSS TYPE INEQUALITY

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*Abstract.* In this note we prove, using Karamata's estimations of the Chebyshev quotient, Grüss type inequality which improves and generalize the inequality given by Dragomir-Khan.

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*Key words and phrases:* Grüss type inequality, Karamata's estimations, Chebyshev quotient.

### REFERENCES

- [1] D. ANDRICA AND C. BADEA, *Grüss' inequality for positive linear functionals*, Periodica Math. Hungarica, **19**, 2 (1988), 155–167.
- [2] M. BIERNACKI, H. PIDĘK AND C. RYLL-NARZEWSKI, *Sur une inégalité entre des intégrales définies*, Ann. Univ. Mariae Curie-Skłodowska, **A4**, (1950), 1–4.
- [3] S. S. DRAGOMIR AND L. KHAN, *Two discrete inequalities of Grüss type via Polya-Szegö and Shisha results for real numbers*, Tamkang J. of Math. (to appear).
- [4] G. GRÜSS, *Über das Maximum des absoluten Betrages Von*  $\frac{1}{b-a} \int_a^b f(x)g(x)dx - \frac{1}{(b-a)^2} \int_a^b f(x)dx \int_a^b g(x)dx$ , Math. Z. **39**, (1935), 215–226.
- [5] A. LUPAS, *On two inequalities of Karamata*, Univ. Beograd, Publ. Elektrotehn. Fak. Ser. Mat. Fiz., No. **602-633**, (1978), 119–123.
- [6] D. S. MITRINović, J. E. PEČARIĆ AND A. M. FINK, *Classical and new inequalities in analysis*, Kluwer Academ. Publ., 1993.
- [7] J. KARAMATA, *Sur certaines inégalités relatives aux quotients et la différence*  $\int fg$  et  $\int f \int g$ , Acad. Serbe Sci. Publ. Inst. Math., **2**, (1948), 131–145.
- [8] J. PEČARIĆ AND B. SAVIĆ, *On generalizations of J. Karamata's results and some applications*, Zbornik radova AkoV, Beograd, (1984), 245–268.