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A PRIMAL APPROACH TO THE CLARKE-LEDYAEV INEQUALITY

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We present a version of the Clarke-Ledyaev inequality that does not involve elements of the dual space. The proof relies mainly on geometry and on the classical lemma of Bishop and Phelps. In addition, this approach allows us to provide a simplified proof of the Clarke-Ledyaev inequality. The approach is primal in the sense that no dual arguments are used. The results are published in [1, 2].

REFERENCES

- [1] M. Hamamdjiev, M. Ivanov, N. Zlateva: *A primal approach to the Clarke-Ledyaev inequality*, arXiv:2412.15640, 2024.
- [2] M. Hamamdjiev, M. Ivanov, N. Zlateva: *A primal approach to the Clarke-Ledyaev inequality*, Rendiconti del Circolo Matematico di Palermo Series 2, 2025.

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