FIXED POINTS FOR COMMUTATIVE FAMILIES OF MAPPINGS

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ABSTRACT. One of the most celebrated results in Metric Fixed Point Theory was given by R. Bruck [1] who proved that the fixed points set of a nonexpansive mapping $T : C \to C$ is a nonexpansive retract of C whenever C is a weakly compact convex subset of the space X which has "nice" properties with respect to the existence of fixed point (for instance normal structure). As a consequence of the investigation of the properties of nonexpansive retracts, Bruck [2] proved the existence of fixed points for a commuting family of nonexpansive mappings. In this talk we will show some applications and extensions to these results.

REFERENCES

[1] R. E. Bruck Jr. , *Properties of fixed-point sets of nonexpansive mappings in Banach spaces*, Trans. Amer. Math. Soc. 179 (1973), 251-262.
[2] R.E. Bruck, *A common fixed point theorem for a commuting family of nonexpansive mappings*, Pacific J. Math. 53 (1974), 59-71.