

Functional Analysis

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1 Metric Spaces

1.1 Metric Space

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Definition 1.1.1 (Metric space, metric)

Example 1.1.2 (Real line \mathbb{R})

1.2 Further Examples of Metric Spaces

(P24)

Example 1.2.1 (Sequence space s)

1.3 Open Set, Closed Set, Neighborhood

Definition 1.3.1 (Open Set) *Given a point $x_0 \in X$ and a real number $r \geq 0$.*