

# Closed embeddings of Hilbert and Krein Spaces

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We introduce the notions of Hilbert and Krein spaces closely embedded, as generalizations of operator ranges and continuously embedded Hilbert and Krein spaces. These spaces are associated to unbounded selfadjoint operators that play the role of kernel operators, and show the connection with Hilbert and Krein induced spaces. Certain canonical representations and characterizations of existence and uniqueness are obtained. Examples based on the Dirac operators are presented as well.