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## On symmetric systems of subspaces of Hilbert space

The description of system of $n$ subspaces of linear space $V$ has become classical problem of linear algebra. In particular, many works devoted to study of indecomposable quadruples of subspaces up to equivalence, representations of posets and other (see [1, 2, 3] and other).

We consider systems of $n$ subspaces of Hilbert space $H$ up to unitary equivalence. With every subspace $H_i$ one can connect orthoprojection $P_i$ on it and study irreducible $n$-tuples of orthoprojections (= irreducible $n$-tuples of subspaces of Hilbert space) up to unitary equivalence. It is well known list of all irreducible pairs of orthoprojections (for example see [4]). But description of all irreducible triples of orthoprojections becomes a *-wild problem [5, 6].

So we add some conditions on subspaces of $H$ to describe them. We say that the system of subspaces is symmetric if permutation of subspaces gives unitary equivalent system to the primary.

We will talk about symmetric systems of $n$-tuples of subspaces of Hilbert space. In particular in the case when the dimension of each subspace is equal to 1 full description of irreducible such systems will be given for any positive integer $n$.

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