Bases of projections in Banach spaces
with an appendix on non-standard analysis

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An increasing net of continuous projections in a Banach space X is
called a basis of projections for X if it converges strongly to the
identity. This notion is more general than that of a Schauder basis or a
Schauder decomposition and many results for these concepts are shown to
hold in the more general setting. Particular attention is paid to
"shrinking" and "boundedly complete" bases of projections and some new
results are obtained concerning reflexivity. Existence theorems are
obtained for bases of projections and also for Schauder decompositions in
non-separable Banach spaces. In the appendix, W.A.J. Luxemburg's
characterisation of the pre-near-standard points in the enlargement of a
Banach space is generalised to locally convex linear topological spaces.