The positive solution to the homogeneous Banach space problem, states that if a Banach space $X$ has only one class of isomorphism of infinite-dimensional subspaces then $X$ must be isomorphic to $\ell_2$. It is therefore natural to investigate the complexity of the relation of isomorphism between infinite-dimensional subspaces of a given separable Banach space which is not isomorphic to $\ell_2$. As defined by Ferenczi and Rosendal, a separable Banach space $X$ is said to be ergodic if the relation $E_0$ is Borel reducible to isomorphism between subspaces of $X$. They conjectured that every separable Banach space not isomorphic to $\ell_2$ must be ergodic.

We provide some additional support to this conjecture by proving that inside the regular class of weak Hilbert spaces, every Banach space which is not isomorphic to $\ell_2$ is ergodic. We actually show that the same is true for the class of asymptotically Hilbertian spaces.