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**J. Alejandro Chávez-Domínguez\*** (jachavezd@math.ou.edu), Norman, OK 73019. *An Ando-Choi-Effros lifting theorem respecting subspaces.*

We prove a version of the Ando-Choi-Effros lifting theorem respecting subspaces, which in turn relies on Oja's principle of local reflexivity respecting subspaces. To achieve this, we first develop a theory of pairs of  $M$ -ideals. As a first consequence we get a version respecting subspaces of the Michael-Pelczyński extension theorem. Other applications are related to linear and Lipschitz bounded approximation properties for a pair consisting of a Banach space and a subspace. We show that in the separable case, the BAP for such a pair is equivalent to the simultaneous splitting of an associated pair of short exact sequences given by a construction of Lusky. We define a Lipschitz version of the BAP for pairs, and study its relationship to the (linear) BAP for pairs. The two properties are not equivalent in general, but they are when the pair has an additional Lipschitz-lifting property in the style of Godefroy and Kalton. We also characterize, in the separable case, those pairs of a metric space and a subset whose corresponding pair of Lipschitz-free spaces has the BAP. (Received July 18, 2017)