Approximative compactness in Banach spaces and applications

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Abstract. The lecture will be organized as follows. We will start with the definition of approximative compactness and some classical results concerning this property. Next, we will show some relationships between approximative compactness and some others geometric properties, for example, nearly dentability and w^* -nearly dentability. We will also present some results concerning approximative compactness in Orlicz and Orlicz-Bochner function spaces. Finally, we will show some applications of approximative compactness in the theory of generalized inverses of operators in Banach spaces.