

Abstract: Almost disjoint families have found various applications in the field of  $C^*$ -algebras. For example uncountable almost disjoint families or more elaborately Luzin families appear in constructions of many  $C^*$ -algebras with intriguing properties. I will introduce new applications of such families in terms of non-commutative analogues of  $\Psi$ -spaces, Mrówka-Isbell  $\Psi$ -spaces and thin-tall scattered spaces with rather unusual properties. This talk is mostly based on a joint work with Piotr Koszmider.