Abstract: The notion of Arf rings was defined by J. Lipman in 1971, for a Cohen-Macaulay semi-local ring $R$ with $\dim R_M = 1$ for every maximal ideal $M$. Arf rings are characterized in terms of the reduction number of integrally closed open ideals as well as the behavior of the blow-ups.

In this talk, we will investigate the structure of integrally closed ideals in Arf rings, while introducing the basic properties of Arf rings and the notion of “weakly Arf rings”.

For an integrally closed open ideal $I$ of an Arf ring $R$, we give a kind of prime ideal decomposition.