

*The 14th Seminar on  
Commutative Algebra and Related Topics, January 3 and 4, 2018  
School of Mathematics, IPM, Tehran*

## **Rings with Canonical Reduction**

**Mehran Rahimi**  
*Kharazmi University*

*Iran*

Some subclasses of Cohen-Macaulay local rings which contains Gorenstein rings have become popular in the last couple of decades.

In 1997, Barucci and Fröberg, introduced the notion of almost Gorenstein ring for one-dimensional analytically unramified rings. This concept has been generalized to Cohen-Macaulay local rings and studied in details by Goto et.al and is still developing, introducing new classes of rings such as 2-almost Gorenstein and generalized Gorenstein local rings.

After presenting a brief history of almost Gorenstein, 2-almost Gorenstein and generalized Gorenstein local rings, I will introduce a new class of rings which admit canonical reductions and show that it contains the class of almost Gorenstein rings. Finally, some applications will be explained.

This talk is based on a joint work with M. T. Dibaei.