

# Age of information under CRT sequences for a collision channel without feedback

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## **Abstract**

In many applications of Internet of Things, such as temperature and air pollution monitoring or traffic condition detection for autonomous driving, received information usually has a higher value when it is fresher. Age-of-information (AoI) is a newly defined performance metric to quantify the information freshness over such a wireless access networks. In this talk, I will focus on the collision channel without feedback and consider a deterministic access scheme, called CRT sequences, based on the Chinese Remainder Theorem. I will provide some new results on the average AoI and average peak AoI under CRT sequences, together with some properties of the sequence structure to optimize the AoI performance.