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Review Jacob fox Public Talk

The title of this talk was “Arithmetic patterns, games, and the quest for fast algorithms”. At the beginning of the talk, the professor review the basic mathematic theory then he talked one aspect of problem – to determine whether a graph is likely to have triangles or whether instead it is more likely to be triangle free. The computer should process the data from large network. The traditional algorithms are insufficient for these purpose and need for faster algorithms has become apparent.

For instance, person has enjoyed playing the card game SET, natural questions that arise from this game have been shown to be closely related to longstanding open problems in mathematics and computer science. In this example, the goal is that quickly distinguish between object. It can produce billion vertices and it will cost much time. we can use regularity method. It can determine the order of the tower height. This method can improve the speed.

Although I cannot understand the method very well now , after learning game theory in this semester, I can do it better.

