

# Welcome to Algebraic Cryptography Center Web Seminar

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**Title: "*On one-relator quotients of the modular group.*"**

**November 19, Time: 5:00pm (New York Time). NOTE SPECIAL TIME !!!!**

## **Abstract:**

We investigate the modular group as a finitely presented group. It has a large collection of interesting quotients. In 1987 Conder substantially identified the one-relator quotients of the modular group which are defined using representatives of the 300 inequivalent extra relators with length up to 24. We study all such quotients where the extra relator has length up to 36. Up to equivalence, there are 8296 more presentations. We confirm Conder's results and we determine the order of all except six of the quotients. Once we find the order of a finite quotient it is easy to determine detailed structural information about the group. The presentations of the groups whose order we have not been able to determine provide interesting challenge problems. We compare and contrast our results with generic results.

