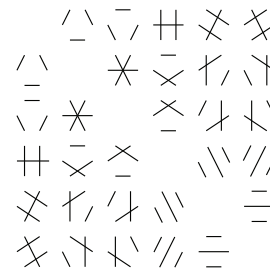# Mathematics Seminar

Rocky Mountain Algebraic Combinatorics Seminar

How many finite rings are there?

Simon Blackburn

Royal Holloway, University of London

For a positive integer n, write $f(n)$ for the number of isomorphism classes of rings of order n. What can we say about $f(n)$?

Determining $f(n)$ exactly for all n looks unrealistic, but in 1970 Kruse and Price stated an asymptotic result that gives the growth rate of $f(n)$ as n goes to infinity. Sadly, as pointed out by Knopfmacher [**?**], there is a problem with their proof. I will talk about the problem, how to fix it, and how to improve the error term of the Kruse–Price result.

2 pm, Thursday (!), Oct 28, 2021
Colorado State University
Online via Zoom
`https://zoom.us/j/95321487441?pwd=Tlp4VG9pejZCekJmeDFFb1BzeWpsdz09`, Meeting ID: 953 2148 7441, Passcode: 722523

This is a joint Denver U / UC Boulder / UC Denver / U of Wyoming / CSU seminar that meets biweekly.

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