

## UBC Number Theory Seminar: October 27, 2021

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**Speaker:** Artane Siad (IAS/Princeton)

**Title:** Monogenic fields with odd class number

**Abstract:** In this talk, we prove an upper bound on the average number of 2-torsion elements in the class group of monogenised fields of any degree  $n \geq 3$ , and, conditional on a widely expected tail estimate, compute this average exactly. As an application, we show that there are infinitely many number fields with odd class number in any even degree and signature. Time permitting, we will also discuss extensions of this result to orders and to the relative setting.