



Liverpool Mathematical Society Popular Lectures, Autumn Term 2016

CHRISTMAS LECTURE

COLIN WRIGHT

a member of Maths Inspiration,
will talk on

Patterns and Predictions

Monday 19th December 2016

2:00pm - 3:00pm

Lecture Theatre B, Central Teaching Hub

University of Liverpool L69 7BX



The talk is suitable for all from Year 11 up, and teachers

This talk starts with some seductively obvious patterns that seem successfully to predict the future, but then goes on to show that not all patterns are trustworthy.

We start with simple arithmetic sequences, and talk briefly about why we claim a sequence "should" continue in a particular way. Then we look at a specific problem and look at the sequence it generates, only to discover that it's not the sequence we expect.

In an apparent shift of topic we then look at Morse Code, and look for patterns in how it's designed, and some implications. Oddly enough, both the doubling sequence (1, 2, 4, 8, 16, ...) and the Fibonacci sequence (1, 1, 2, 3, 5, 8, ...) arise naturally.

We finish by going meta, and using a pattern of patterns to predict the existence of Juggling Patterns.

TICKETS ARE REQUIRED (Free entry to all)

Book tickets here: <http://tinyurl.com/LivMSxmas2016>

Any late changes will be posted on the LivMS webpage

<http://www.livmathssoc.org.uk>