

# Café Scientifique Headingley

Monday 11th December 2023

**A tour of our Solar System: creating the conditions for life**

by

**Katharine Johnston**



[https://commons.wikimedia.org/wiki/File:Mercury\\_in\\_true\\_color.jpg](https://commons.wikimedia.org/wiki/File:Mercury_in_true_color.jpg) Mercury as seen from MESSENGER

**Outline:** In this talk I will take you on a whistle-stop tour of the planets and bodies in our Solar System, to uncover what they can tell us about how likely it is for life to occur outside Earth. The evidence from our Solar System, containing many "failed" Earths (including it seems even Mercury), suggests we don't only need to build a planet by collecting planetesimals together with the right chemical composition: a whole host of other factors need to be just right to make the conditions perfect for life.

**Speaker:** ***Katharine Johnston** is a Research Fellow at the University of Leeds. She obtained her PhD at the University of St Andrews, during which she spent time at the National Radio Astronomy Observatory in New Mexico and Harvard University. Before coming to Leeds, she spent time as a postdoctoral researcher at the Max Planck Institute for Astronomy in Heidelberg and as one of the ALMA telescope commissioning team. Katharine's research uses observations taken with radio telescopes such as ALMA in Chile and e-MERLIN based in the UK to understand massive star formation, specifically how massive stars form from material fed to them by their surrounding accretion discs, and also has a keen interest in planetology.*

**Venue:** The New Headingley Club, 56 St Michaels Road, LS6 3BG

**Time:** Room opens 7:30pm, Talk begins promptly at 7:45pm

**Entry:** Donation please for room hire and expenses: £4 at the door



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