

Café Scientifique Headingley

Monday 13th February 2023

Recycling the Sun

By: Marie Van de Sande



Credit: ESA/Hubble & NASA, T. Ueta, H. Kim

Outline: The saying that we are all made of stardust is largely true: except for hydrogen, all the atoms in our bodies were forged in the cores of stars that died millions of years ago. For example, most of the carbon was made inside cores of stars similar to our Sun. As these solar-like stars died, they expelled their lives' work into space by means of a gentle stellar outflow. While the death of our Sun will not be as dramatic as a supernova explosion, its death throes will have a large impact far beyond our Solar System. In my talk, I will focus on the chemistry that occurs throughout the stellar outflows of dying solar-like stars and how the dust particles produced in those unique environments go on to form the building blocks of new generation of stars and planets. I will also look closer to home and discuss how our Solar System could influence the final breaths of our Sun.

Marie Van de Sande is a Marie Skłodowska-Curie Individual Fellow in astrochemistry at the University of Leeds. She obtained her PhD in 2018 at KU Leuven, Belgium, where she stayed on as a fellow of the Research Foundation Flanders (FWO). Marie's research focusses on the chemistry within the outflows of dying solar-like stars, which she studies using both theoretical chemical models and observations.

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

Time: Room opens 7:30pm, the presentation begins promptly at 7:45pm

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



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