



Liverpool Mathematical Society
Popular Lecture Series, Autumn Term 2017

CHRISTMAS LECTURE

The Fluid Dynamics of Chocolate Fountains



Image courtesy of London Mathematical Society

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<https://adamtownsend.com/research/chocolate-fountains/>

Monday 18th December 2017
2:00PM to 3:00PM

University of Liverpool, Chadwick Building, L69 7ZF

Chocolate fountains are popular features at special events. But why do they never use white chocolate? Would they work with water? And why, when the chocolate falls, does it fall slightly inwards? In this most delectable of studies, we investigate the trade-off between accuracy and simplicity in models used by commercial chocolatiers. In different geometries of the fountain, we solve the governing equations, mostly analytically, and compare these results with observations from our own fountain experiments. We find that, with some limitations, our models are in fact good for a number of non-Newtonian fluid problems. Marshmallows are, sadly, not provided.

Suitable for a general audience and in particular for Y11 pupils and above, teachers and student teachers.

No door charge. This lecture is free to everyone. **TICKETS ARE REQUIRED**

Book tickets here: <https://tinyurl.com/xmaslecture2017/>

Further details and any late changes will be posted on the LivMS webpage:

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