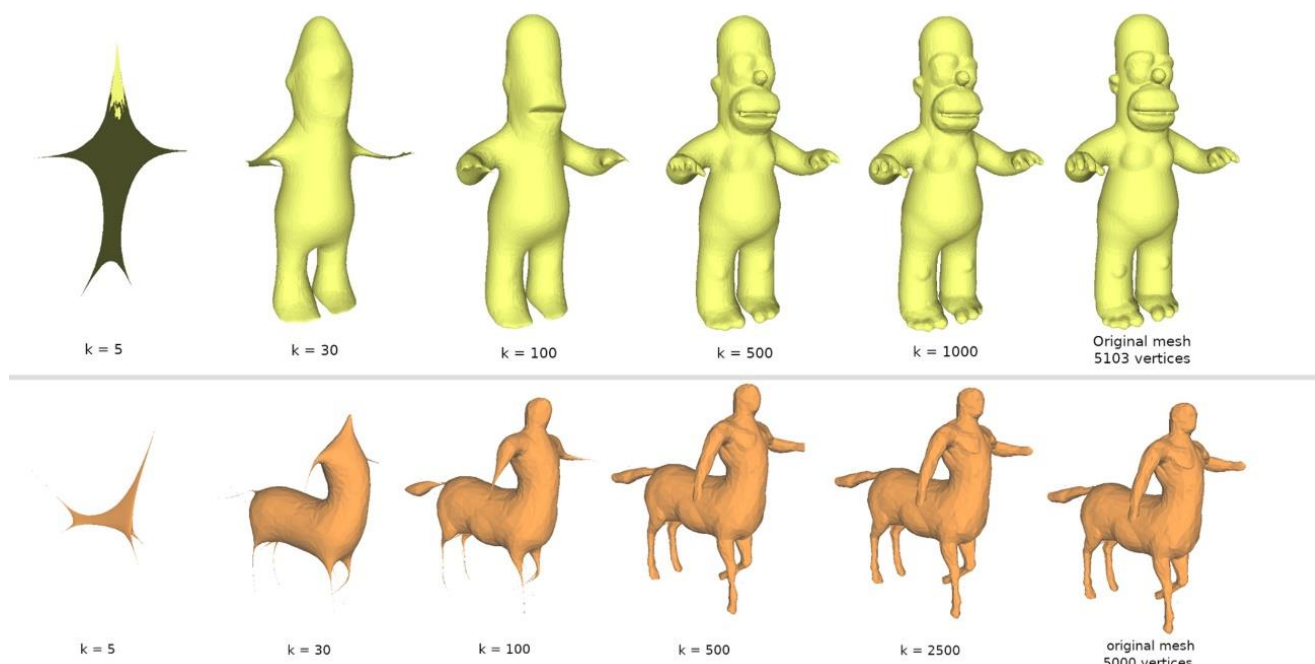


# Café Scientifique Headingley

Monday 11 July 2022

## The Maths of Shape: Making Homer Simpson Dance by Kevin Houston



**Outline:** How does one describe a shape or compare it to other shapes? These are important questions in many applications. For example, in medicine, how does a patient's heart compare to the average heart? But then, what does the average heart look like? And what does it even mean to be average? In this talk I will describe recent progress in shape analysis that has been achieved by a new twist on a very old method. I shall show some light-hearted applications by creating 3D caricatures of faces and animating objects to dance in time to music.

### Dr Kevin Houston

is a senior lecturer in the School of Mathematics at the University of Leeds. He is interested in the study of shape and how it can be used to help understand the world. He has a strong interest in maths education and is currently the Education Secretary of the London Mathematical Society (which despite its name is the foremost national mathematical society). His bestselling textbook *How To Think Like A Mathematician* is used across the world as an introductory text for undergraduates.

He regularly gives talks on a variety of topics to schools and to the general public.

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

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

**Entry:** *Donation please for room hire and expenses: £3 at the door*



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