

The Cosmic Cast aims to promote Earth and planetary science to members of the public with an interest in science.

1. Format

- Episodes are ~30 minutes long and are conversational in style. Guests include scientists from PhD to professor level, from across the UK.
- While disseminating research outputs from the UK planetary science community is at the core of each episode, we also ask guests about their career paths and the challenges associated with an academic career.
- We upload episodes to platforms such as YouTube, Spotify, and iTunes to reach the widest possible audience. The main advantages of podcasts over in-person events is that we are able to communicate science to international audiences.



Figure 1: Percent of total listens on podcast distribution platforms (Spotify, iTunes etc. by country).

3. Our Impact

- From February 2019 to March 2020, we produced 42 episodes, including other videos such as conference vlogs and meteorite fact files.
- In this time, we have had a total **5443 views** on YouTube and **579 listens** on other podcast platforms. YouTube analytics estimates that this represents a core audience of ~150 unique listeners every month (Fig. 2).

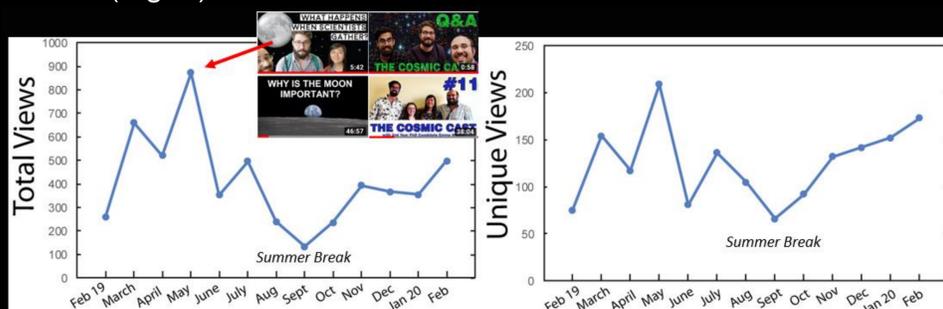


Figure 2: Total and unique views per month since launch on YouTube.

- May 2019 stands out as a successful month in terms of view count. This is due to regular uploads of diverse content. During this month, in addition to normal podcast episodes, we published a vlog and public lecture from the European Lunar Symposium and produced a 'Q&A' episode with questions from the public.

2. Gap in the Market

- In the UK, 7.1 million people listen to podcasts on a weekly basis [1], however, podcasts focussing on Earth and planetary science make up only ~2% of active podcasts [2].
- We feel there is a demand for Earth and planetary science content based on the success of other science YouTube channels.

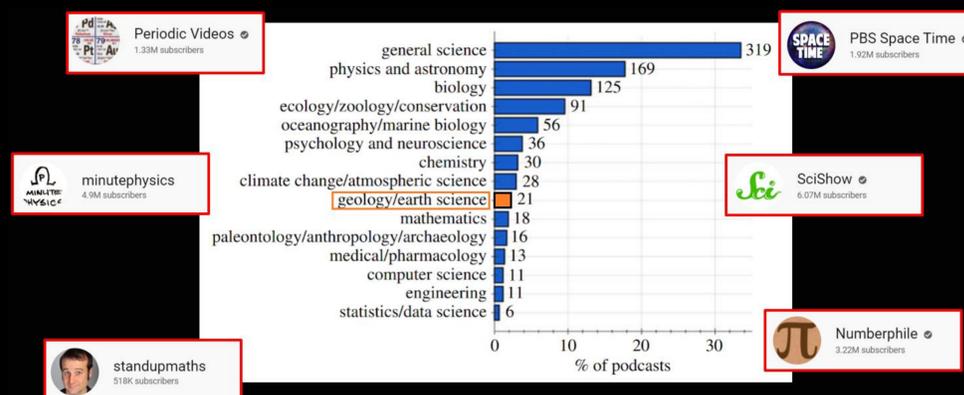


Figure 3: Proportion of active science podcasts in 2019, broken down by subject area [2]. Surrounding red boxes highlight popular science YouTube channels.

4. Growing our Audience

- ~67% of our views come from searches within the YouTube website, however 19.4% come from social media promotion (Fig. 4).
- Our most successful videos reflect current events, such as the UK Antarctic Meteorites Project [3] (286 views) and the 50th anniversary of the Allende fall (578 views).



Figure 4: Breakdown of YouTube channel traffic from different social media platforms since launch.

5. The YouTube Algorithm

- We focus on YouTube as a platform for our podcast as we can reach audiences beyond those we currently engage with on social media. This is due to the recommendation algorithm employed by YouTube.
- Over the last year, our podcast was recommended 39200 times. From this, 2352 extra views were generated (~43% of our total views) resulting in 360 hours of watch time. This demonstrates the power of YouTube for reaching new audiences.

