

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
Calling Planet Earth - Space Outreach to the General Public (6)

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FIREBALLS IN THE SKY: A GLOBAL FIREBALL NETWORK IN OUR POCKETS

**Abstract**

Fireballs in the Sky is an award-winning citizen science program that connects the public with the research of the Desert Fireball Network [DFN], based at Curtin University in Perth, Australia. Through augmented reality, an intuitive interface and sensing technology of a smartphone app, anyone anywhere in the world can recreate their fireball sighting to contribute scientifically useful data. Together with NASA the DFN is expanding to become a Global Fireball Observatory that aims to understand the early workings of the solar system by studying meteorites, fireballs and their pre-Earth orbits. Using an autonomous network of cameras, the DFN captures the paths of fireballs in the sky, triangulating trajectories from multiple viewpoints. Fireballs in the Sky extends the reach of the observations via the app, and through a comprehensive outreach program engages the public in these research endeavors. To date, the app has over 28,000 downloads in 90 countries and 2560+ reports. The locations of reports are shown on a live map on the Fireballs in the Sky webpage and app users can see recreated fireball sightings from around the globe. Along with winning multiple awards – most significantly the Australian Government Eureka Prize for Innovation in Citizen Science – this program has aided the swift recovery of a pristine meteorite from Western Australia in October 2016. The next steps for Fireballs in the Sky is collaborating further with NASA Outreach and Citizen Science, connecting new communities with this program as the DFN expands globally.