



FLEET/UNSW SCIENTISTS SHARING THEIR PASSION FOR SCIENCE: SCIENCE OUTREACH IN AUGUST

—by [Cecilia Bloise, Node Coordinator, UNSW](http://www.fleet.org.au/team/?mgs_91=cecilia&mgi_91=4519/cecilia-bloise) (http://www.fleet.org.au/team/?mgs_91=cecilia&mgi_91=4519/cecilia-bloise).

There's nothing like a strong dosage of outreach to get the 'cats out of the box' into the public sphere.

The FLEET Centre of Excellence invests significant resources into science-outreach, aimed to inspire stronger engagement with science across all levels of the community, from primary and secondary school students to the broader population.

Beyond this, science outreach also builds valuable skills for our FLEET members.

Over the last month, FLEET-UNSW members have flown the flag for science at a very successful science festival, introduced prospective students (and their parents) to UNSW science at the university's open day, and developed a new card game to celebrate the international year of the periodic table.

[SYDNEY SCIENCE FESTIVAL](#)

Over the nine days of last month's Sydney Science Festival, 12 UNSW FLEET members from three different schools (School of Physics, Materials Science and Engineering, and Chemical Engineering) demonstrated superconductivity at the Science Museum: whizzing a super-cooled superconductor around a magnetic track an average of 70 times a day.

The crowds of children (some just measuring 60 cm high! Attention: cuteness overload) were ah-mazed!

We even managed to WOW groups of teenagers... (

Ah! That short-lived moment, when we were 196 degrees cooler than the average Millennial! Carpe Diem I say, and keep that superconductor spinning!)

The Science Festival was buzzing with science booths and numerous activities brought by universities, science museums and environmental organisations.

Participating FLEET members found it an energising experience...

"It was great seeing the enthusiasm of school kids for superconductivity. It's something that has captivated physicists for a century, so being able to share that with a new generation is fantastic," said FLEET theorist Dr Sam Bladwell (http://www.fleet.org.au/team/?mgs_91=Bladwell&mgi_91=5830/sam-bladwell), after helping on the opening day.

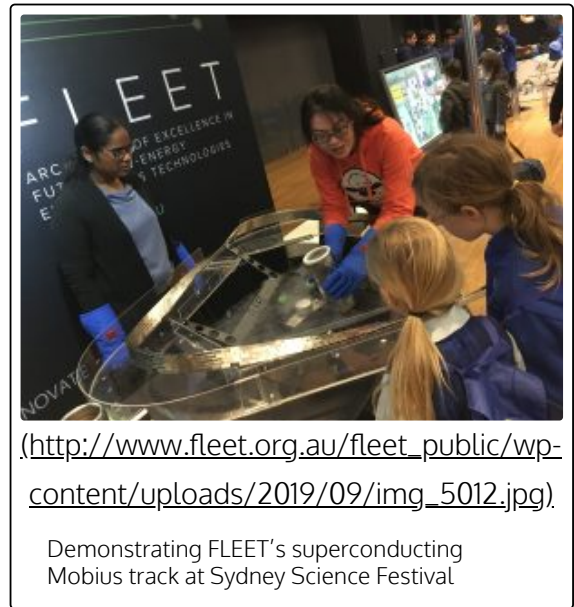
"Kids are natural-born scientists. They watched with open-minded curiosity and kept on asking questions," said Dr Aydin Keser (http://www.fleet.org.au/team/?mgs_91=Keser&mgi_91=4328/aydin-keser), another FLEET theorist.

At the end of the event, a total of 9300 visiting students from kindergarten to high school learned that:

- Superconductivity is a quantum state where electric current can flow without resistance
- The Mobius strip is a topological shape with just one side
- Last but not least... "You cannot dip your hand, finger, nose in liquid nitrogen. And drinking it is out of question" (Yes, these were true conversations... and yes, in case you are wondering, we do take our health and safety rules very seriously.)

UNSW OPEN DAY

This past weekend, UNSW Open Day smashed the charts with a record attendance of over 38,000 visitors. UNSW Node Leader Alex Hamilton (http://www.fleet.org.au/team/?mgs_91=Alex&mgi_91=749/alex-hamilton) and a team of FLEET members were 'out of the box' again, showing superconductivity in the Physics tent, as well as Scanning Tunnelling Microscopy



(STM) in the Materials Science and Engineering tent. The working STM surprised many of the visiting public, as they were able to 'see' individual atoms on material surfaces.

FLEET members also gave tours of UNSW, including lab tours of the School of Physics, which allowed a "behind the scenes" view to keen future students, parents and curious physics enthusiasts alike.

"We were able to give prospective students a taste of what it's like to study physics at UNSW by showing them around our laboratories dedicated to teaching, along with our research laboratories," said FLEET's Dr [Karina Hudson](http://www.fleet.org.au/team/?mgs_91=Karina&mgi_91=8858/karina-hudson) (http://www.fleet.org.au/team/?mgs_91=Karina&mgi_91=8858/karina-hudson), who led several Physics tours during the day.

[Yonatan Ashlea Alava](http://www.fleet.org.au/team/?mgs_91=Yonatan&mgi_91=4349/yonatan-ashlea-alava) (http://www.fleet.org.au/team/?mgs_91=Yonatan&mgi_91=4349/yonatan-ashlea-alava), a PhD research student, who also participated on the day, agreed: "Participating at Open Day was a great experience; the feedback from the visiting crowd was great, and we attracted a lot of interest. I will be there next year!"

NEW CARD GAME ENGAGING ELEMENTAL SCIENCE

Last but not least, last week we were thrilled to receive our new **FLEET Trump Cards**, developed by [Daniel Sando](http://www.fleet.org.au/team/?mgs_91=sando&mgi_91=4329/daniel-sando) (http://www.fleet.org.au/team/?mgs_91=sando&mgi_91=4329/daniel-sando) at UNSW along with and FLEET research colleague [Eliezer Estrecho](http://www.fleet.org.au/team/?mgs_91=Estrecho&mgi_91=5502/eliezer-estrecho) (http://www.fleet.org.au/team/?mgs_91=Estrecho&mgi_91=5502/eliezer-estrecho) (ANU), and [Dianne Ruka](http://www.fleet.org.au/team/?mgs_91=ruka&mgi_91=1222/dianne-ruka) (http://www.fleet.org.au/team/?mgs_91=ruka&mgi_91=1222/dianne-ruka).

This year is the [International Year of the Period table of Chemical Elements](https://www.iypt2019.org/) (<https://www.iypt2019.org/>), and the aim of this game is to teach players some of the most important elements of the periodic table.

And for now, we say goodbye. The cats are back in the box, feeling more alive than ever... charging up for the next outreach event!



(http://www.fleet.org.au/fleet_public/wp-content/uploads/2019/09/KARINA-HUDSON-ALEX-.jpg).

Karina Hudson at UNSW Open Day



(http://www.fleet.org.au/fleet_public/wp-content/uploads/2019/09/suprised-harvey-2.jpeg).

FLEET elemental card game aims to engage kids with the periodic table

See [FLEET.org.au/outreach](http://www.fleet.org.au/outreach/) (<http://www.fleet.org.au/outreach/>) for more about FLEET's outreach program, or contact [Dianne Ruka](mailto:education@fleet.org.au) (<mailto:education@fleet.org.au>) for details.

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