

18th June 2019

Nuclear Physics News from Australia

1. Simenel from the ANU recently published a Nature article explaining that the mass asymmetry in spontaneous fission is due to octupole correlations, not shell structure near 132Sn .
<https://www.nature.com/articles/s41586-018-0780-0>
2. Progress continues on the construction of a new underground laboratory in Stawell – between Melbourne and Adelaide. SUPL will be located in a gold mine at a depth of 1,025m. The Federal Government just announced a contribution of \$5m towards construction. This comes on top of an earlier contribution of \$2m and there are hopes of matching funding from the Victorian Government.
3. The first experiment in SUPL will be a joint effort to repeat a much improved version of DAMA simultaneously with an experiment at Gran Sasso. This experiment is proceeding well.
4. In May there was a formal interview for a new Centre of Excellence (funded by the Australian Research Council) to search for dark matter. If successful this bid, involving scientists from Adelaide, Melbourne, Sydney, Perth and Canberra, would bring up to \$30m over 7 years. Results from the competition to be announced in August.