

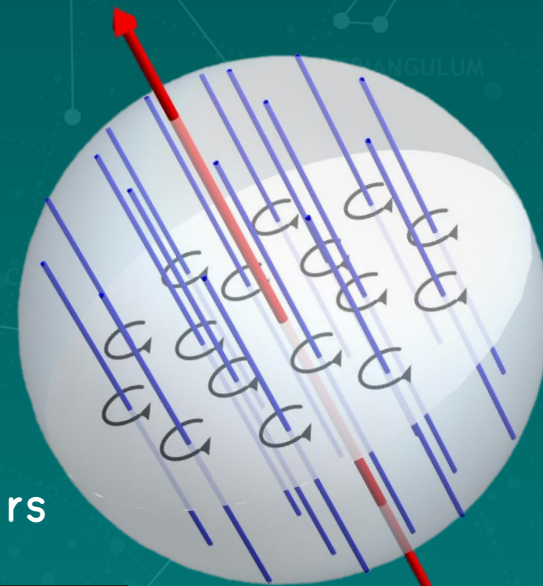


Thippayawis "Tong" Cheunchitra

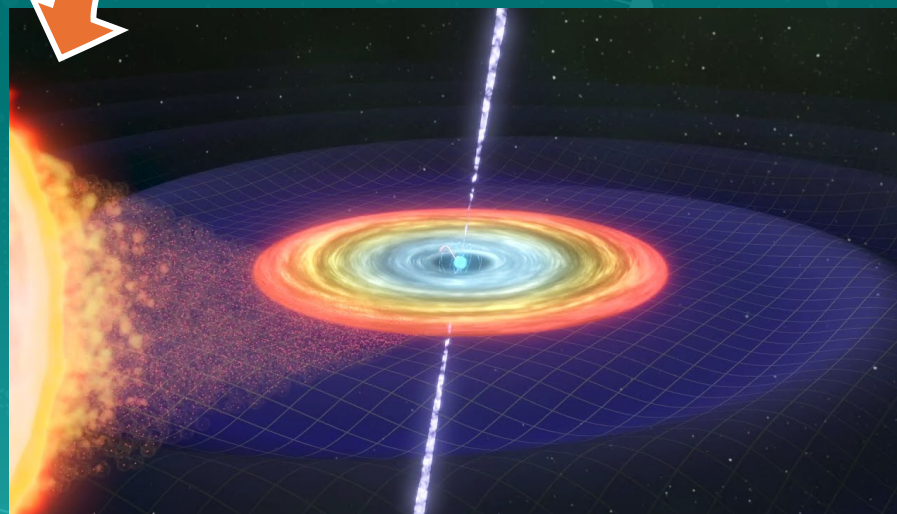
3rd year PhD
U. of Melbourne/OzGrav
Australia



Vortex Arrays in
Neutron Stars



Search for GW from
Accreting Millisecond Pulsars

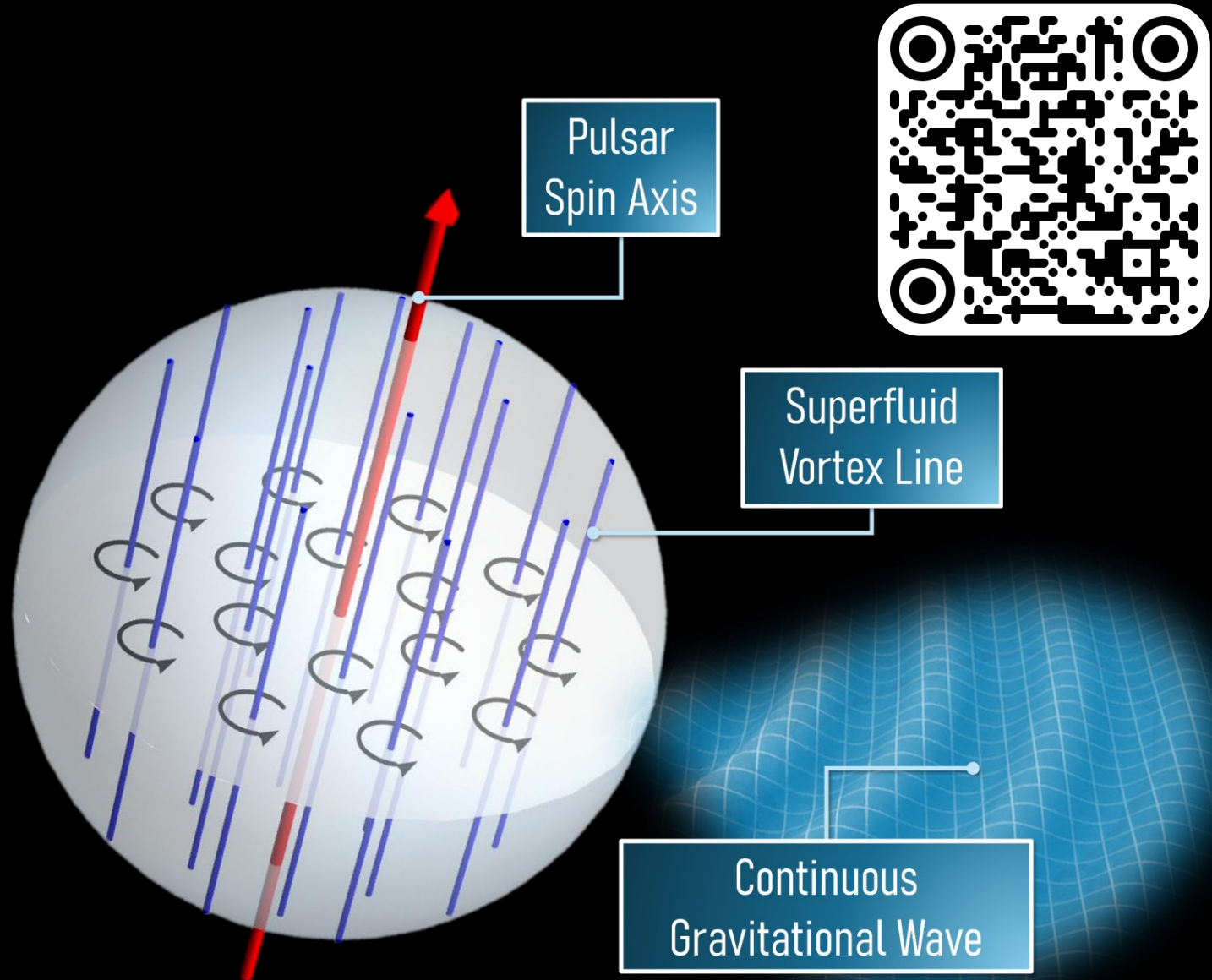


Outreach (sometimes
in Antarctica!)



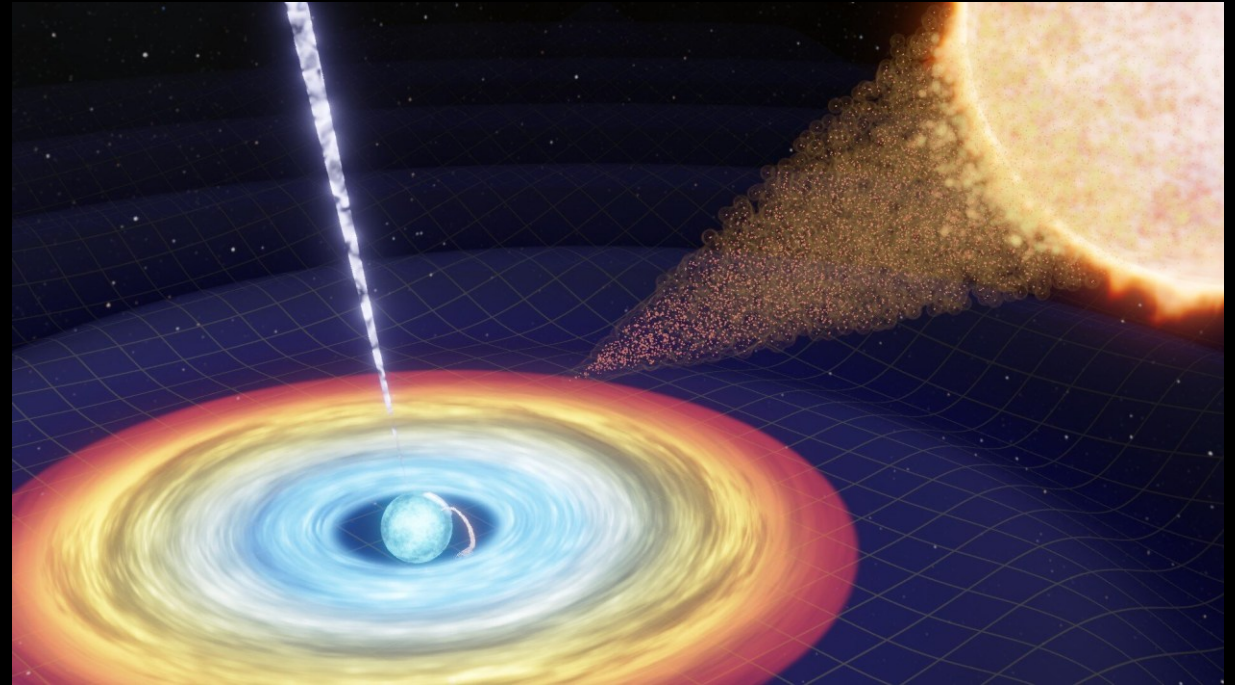
Persistent Gravitational Radiation from Vortex Arrays

- Pulsar glitches → vortex avalanches → **asymmetric vortex arrays** → GW
- We calculate GW amplitude with simulation/analytic approximations
- Signal is weak but could tell us about NS microphysics!



Continuous GW in Accreting Millisecond X-ray Pulsars

- AMXPs are promising GW sources
 - Torque balance
 - X-ray Pulsars → Known frequency → **cheap searches**
- Account for spin-wandering using a hidden Markov model



ONGOING