

# Electromagnetic pulsar spindown

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## **ABSTRACT:**

We review the issue of electromagnetic pulsar spindown. We discuss the recent numerical results on the 3-D structure of the magnetosphere of a misaligned rotator, and we evaluate them based on our experience from the idealized case of the aligned rotator where ideal steady state MHD conditions apply. We argue that near the death line aligned rotators may spin down much slower than orthogonal ones. We test this hypothesis through a Monte Carlo fit of the  $P - \dot{P}$  diagram without invoking magnetic field decay. We predict that the older pulsar population has preferentially smaller magnetic inclination angles and braking index values  $n > 3$ . Finally, we offer an observational test of our hypothesis.