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Synchrotron maser from weakly magnetised neutron stars as the emission mechanism of fast radio bursts

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The origin of Fast Radio Bursts (FRBs) is still mysterious. All FRBs to date show extremely high brightness temperatures, requiring a coherent emission mechanism. Using constraints derived from the physics of one of these mechanisms, the synchrotron maser, as well as observations, we show that accretion induced explosions of neutron stars with surface magnetic fields of B_*<10^{11} G are favoured as FRB progenitors.

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