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Black hole spacetimes and pulsar timing RICHARD PRICE, TEVIET CREIGHTON, FREDRICK JENET, University of Texas at Brownsville, YAN WANG, UTB and Nanjing University — A pulsar in a relativistic orbit around a supermassive black hole will exhibit potentially observable strong field effects in the times of arrival of its pulses. We present a simple formalism for computing these effects. This formalism is applied to illustrate the several types of strong field effects, to give explicit examples for the simple case of equatorial pulse beaming and to present a more general discussion for nonequatorial beaming.

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