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Magneto-Rotational Melting of Quarkonia in Quark Gluon Plasma[1] KIRILL TUCHIN, Iowa State University — Quark-Gluon Plasma produced in Relativistic Heavy Ion Collisions is characterized by large vorticity and is subject to intense magnetic field. The Lorentz force exerted by this magnetic field on the moving quarkonium can tear the quarkonium apart by causing its quark or antiquark to tunnel through the potential barrier. The corresponding decay rate, computed using the WKB approximation, strongly depends on plasma vorticity. Moreover, since the Lorentz force depends on electric charge whereas the vorticity does not, the decay rate of positively and negatively charged bound states is different.

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Kirill Tuchin
Iowa State University

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