On the dynamics in the Lagrange problem subject to non-gravitational forces

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We discuss the different kind of possible motion that can be found in the restricted three-body problem close to the orbital synchronous resonance. After a short review of possible non-gravitational forces that may effect the motion of small sized particles in the tadpole regime of motion we introduce the concept of normal forms to investigate the dynamics from a qualitative point of view. The talk concludes with recent results on the long-term dynamical evolution of particles close to the Lagrangian points $L_4$ and $L_5$. 

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