

Scattering parabolic solutions for the N-centre problem

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joint works with Walter Dambrosio¹, Duccio Papini² and Susanna Terracini¹

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For the N-centre problem, both in the two dimensional and in the three dimensional Euclidean space, we prove the existence/multiplicity of entire parabolic trajectories having prescribed asymptotic directions. The proof relies on variational arguments (local minimization or critical point theory); level estimates, Morse index estimates and regularization techniques are used in order to rule out the possible occurrence of collisions.

References

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