# The motion of the director field of a nematic liquid crystal

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## Talk Abstract

In this talk, based in a joint paper with Paulo Amorim and Assis F. Martins, cf. [1], we study the motion of the director field of a nematic liquid crystal submitted to a magnetic field and to a laser beam. For planar deformations depending on a single space variable and in a particular case we prove the existence of a weak solution for the corresponding initial value problem.

**Keywords:** nematic, magnetic field, laser beam, Cauchy problem.

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# References

[1] Amorim, P., Dias, J.P., and Martins, A.F. , On the motion of the director field of a nematic liquid crystal, to appear.