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“Small-scale magnetic fields in galactic dynamo”

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Large-scale magnetic field of spiral galaxies are believed to be excited by galactic dynamo driven by joint action of differential rotation and mirror-asymmetric interstellar turbulence. This mechanism produces large-scale magnetic field however it produces a small-scale magnetic field as well. In addition, a specific kind of dynamo which can work even in a mirror symmetric turbulence can contribute in small-scale magnetic field production. Analysis of observational data confirm that spiral galaxies contain small-scale magnetic field together with large-scale one. A dynamo model which involves small-scale magnetic field generation is considered. This model demonstrated development of magnetic arms known from observations in several galaxies, say, in NGC6946.