

Real-time dynamics of proton decay

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Abstract: Substituting Skyrmion for nucleon, one can potentially see in real time how the monopole is catalysing the proton (or neutron) decay and even obtain a plausible estimate for catalysis cross-section. Still, only a limited progress has been achieved in more than 20 years since this simple idea has been suggested. After a brief review of recent results we concentrate on how the dynamics of Skyrmion-monopole system can be simulated in real time, discuss the technical problems and identify the ways to solve them.