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Light hyperon physics at BESIII

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The BESIII experiment at the electron positron collider BEPCII in Beijing is successfully operating since 2008 and has collected large data samples in the tau-mass region, including the world's largest data samples at the J/Psi and Psi(2S) resonances. The recent observations of hyperon polarisations at BESIII opens a new window for testing CP violation, as it allows for simultaneous production and detection of hyperon and anti-hyperon pair two body weak decays. The CP-symmetry tests can be performed in processes like e.g. J/Psi —> Lambda Lambdabar, J/Psi —> Sigma Sigmabar and J/Psi —> Xi Xibar. For the Xi —> Lambda pi decay it is possible to perform three independent CP tests and determine the strong phase and weak phase difference. In this presentation an outline of the methods and recent results achieved at BESIII will be highlighted.

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