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## Performance of Spaceborne Bistatic Synthetic Aperture Radar

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**This paper reports on a model developed for evaluating major system performance of a spaceborne bistatic synthetic aperture radar (SAR) for remote sensing applications. The procedure accounts for formation flying aspects. It is particularly aimed at comparison of monostatic and bistatic cases, and, as a test case, it is applied to study a novel configuration, based on a small satellite equipped with a receiving-only antenna orbiting in tandem with a large, noncooperative transmitting spacecraft, the Italian COSMO-SkyMed mission. Numerical results and plots show the effectiveness of the procedure as a mission design tool and put in evidence key issues and characteristics of the proposed spaceborne bistatic formation**