

## SURFACES FROM DEFORMATION OF PARAMETERS

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**Abstract.** We construct surfaces from modified Korteweg-de Vries (mKdV) and sine-Gordon (SG) soliton solutions by the use of parametric deformations. For each case there are two types of deformations. The first one gives surfaces on spheres and the second one gives highly complicated surfaces in three dimensional Euclidean space ( $\mathbb{R}^3$ ). The SG surfaces that we obtained are not the critical points of functional where the Lagrange function is a polynomial function of the Gaussian ( $K$ ) and mean ( $H$ ) curvatures of the surfaces. We also give the graph of interesting mKdV and SG surfaces arise from parametric deformations.

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