Identifying neighbors of stable surfaces

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Abstract. We identify the stable surfaces around the stable limit of the examples of Y. Lee and J. Park [15], and H. Park, J. Park and D. Shin [19], using the explicit 3-fold Mori theory of [8]. These surfaces belong to the Kollár-Shepherd-Barron-Alexeev compactification of the moduli space of simply connected surfaces of general type with $p_g = 0$ and $K^2 = 1, 2, 3$.

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