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**Yi Lai\*** (yilai@berkeley.edu). *A family of 3d steady gradient solitons that are flying wings.*

We find a family of 3d steady gradient Ricci solitons that are flying wings. This verifies a conjecture by Hamilton. For a 3d flying wing, we show that the scalar curvature does not vanish at infinity. The 3d flying wings are collapsed. For dimension  $n \geq 4$ , we find a family of  $\mathbb{Z}_2 \times O(n-1)$ -symmetric but non-rotationally symmetric  $n$ -dimensional steady gradient solitons with positive curvature operator. We show that these solitons are non-collapsed. (Received December 17, 2020)