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Marion Moore Campisi* (campisi@math.utexas.edu). *α -sloped thin position for 3-manifolds.*

We introduce the concept of α -sloped thin position of 3-manifolds M with torus boundary and examine its relationship to generalized Heegaard splittings of the manifolds resulting from Dehn filling on M . We compare α -sloped thin position of 3-manifolds to other types of thin position for knots and 3-manifolds and discuss how this kind of decomposition gives an organic picture of M and allows the structure of the manifold to dictate the most natural slope on the boundary. Additionally, we provide illustrative examples and questions motivating the study of α -sloped thin position. (Received January 25, 2011)