

ABSTRACT. The purpose of this note is to introduce a new method for proving the existence of Sasakian-Einstein metrics on certain simply connected odd dimensional manifolds. We then apply this method to prove the existence of new Sasakian-Einstein metrics on $S^2 \times S^3$ and on $(S^2 \times S^3) \# (S^2 \times S^3)$. These give the first known examples of nonregular Sasakian-Einstein 5-manifolds. Our method involves describing the Sasakian-Einstein structures as links of certain isolated hypersurface singularities, and makes use of the recent work of Demailly and Kollár who obtained new examples of Kähler-Einstein del Pezzo surfaces with quotient singularities.