1086-VM-834   **Yun Myung Oh*** (`ohy@andrews.edu`), 124 Haughey Hall, Andrews University, Berrien Springs, MI 49104. *Riemannian submersion and Lagrangian isometric immersion.*

It has been known that if a Riemannian manifold admits a non-trivial Riemannian submersion with totally geodesic fibers, then it cannot be isometrically immersed in any Riemannian manifold of non-positive sectional curvature as a minimal submanifold. B. Y. Chen proved this using an inequality involving the submersion invariant and his inequality shows the maximum value of the invariant. The author could find another inequality that gives the minimum of the submersion invariant under a certain assumption. (Received September 13, 2012)