

Meeting: 1000, Albuquerque, New Mexico, SS 8A, Special Session on Interactions in Riemannian Geometry

1000-53-59 **Tedi Draghici*** (draghici@fiu.edu), Department of Mathematics, University Park Campus,
Florida International University, Miami, FL 33199. *Weyl curvature and almost Kahler
geometry*. Preliminary report.

Many investigations in almost Kahler geometry have been motivated by a conjecture of Goldberg from 1969 stating that a compact Einstein almost Kahler manifold is necessarily Kahler. This was confirmed in the case of non-negative scalar curvature by Sekigawa in 1987, but the full conjecture is still very much open. Recently, Satoh and Kirchberg extended the result of Sekigawa by replacing the Einstein condition with weaker assumptions on the Weyl curvature and positivity of the Ricci tensor. A further generalization of the results of Satoh and Kirchberg is obtained in dimension 4. (Received August 10, 2004)