1046-47-1753   **Manuel Ponce-Escudero*** (`mpe@us.es`), C/ Virgen del Buen Suceso, 3, 41620 Marchena, Sevilla, Spain, and **Alfonso Montes-Rodríguez** and **Stanislav Shkarin**. *Invariant Subspaces and Composition Operators.*

A vector subspace of a Hilbert space is said *invariant* under a given operator T in case T maps it into itself. The set of all subspaces invariant under T is called the *lattice of invariant subspaces* of T.

In this talk we will study the lattice of invariant subspaces of a class of composition operators acting on several weighted Bergman spaces (including the classical Hardy and Bergman spaces). The characterization is completed establishing explicit isomorphisms between these spaces and certain weighted Sobolev spaces. (Received September 16, 2008)