REFLECTION GROUPS IN NONNEGATIVE CURVATURE

KARSTEN GROVE

UNIVERSITY OF NOTRE DAME

ABSTRACT. We provide an equivariant description / classification of all complete (compact or not) non-negatively curved manifolds M together with a co-compact action by a reflection group W, and moreover, classify such W. In particular, we show that the building blocks consist of the classical constant curvature models and generalized open books with non negatively curved bundle pages, and derive a corresponding splitting theorem for the universal cover. This is joint work with F. Fang