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Hongyou Wu*, Department of Mathematics, Northern Illinois University, DeKalb, IL 60115. *On Bäcklund Transformations Using Two Pseudo-Potentials*. Preliminary report.

We classify Bäcklund transformations for nonlinear partial differential equations of the KdV and modified KdV type and using two pseudo-potentials. It is assumed that in the definitions of the transformations and the pseudo-potentials used, the highest order of partial derivatives of the old solution is less than or equal to 2. (Received August 24, 2005)