1054-35-179   **Benoit Pausader*** (`benoit.pausader@math.brown.edu`), Mathematics department, Box 1917, Providence, RI 02912. *Scattering for fourth-order wave equations.*

We consider the fourth-order wave equation $u_{tt} + \Delta^2 u + mu + |u|^{p-1}u = 0$ in dimensions $n = 2, 3, 4$. This model was introduced by Bretherton to understand nonlinear interaction between waves. We prove that any initial data with finite energy leads to a global solution that approaches a linear solution asymptotically in time. (Received September 13, 2009)