

Controlled linear stochastic evolution equations driven by Lévy processes are studied in the Hilbert space setting. The control operator may be unbounded which makes the results obtained in the abstract setting applicable to parabolic SPDEs with boundary or point control. The first part contains some preliminary technical results, notably a version of Itô formula which is applicable to weak/mild solutions of controlled equations. In the second part, the ergodic control problem is solved: The feedback form of the optimal control and the formula for the optimal cost are found. The control problem is solved in the mean-value sense and, under selective conditions, in the pathwise sense. As examples, various parabolic type controlled SPDEs are studied.