Horodets'kyi V.V., Martynyuk O.V. Approximate Solutions of One Abstract Cauchy Problem // Journal of Mathematical Sciences (United States). 2021. – Volume 253, Issue 2. P. 230-241. <u>https://link.springer.com/article/10.1007%2Fs10958-021-05224-6</u>

We find approximate solutions of the Cauchy problem for a differentialoperator equation of hyperbolic type with degeneration in a Hilbert space. In terms of these approximations, we give a characteristic of the Gevrey classes for a nonnegative self-adjoint operator.