1145-35-764 **Alessia E. Kogoj*** (alessia.kogoj@uniurb.it), University of Urbino, Piazza della Repubblica 13, 61029 Urbino, PU, Italy, and **Ermanno Lanconelli** (ermanno.lanconelli@unibo.it), University of Bologna, Piazza di Porta San Donato 5, 40126 Bologna, Italy. *On the Dirichlet problem in cylindrical domains for evolution Oleinik–Radkevic PDE's : a Thychonov-type theorem.*

We are concerned with linear second order PDE's of the type:

$$\mathcal{L} = \mathcal{L}_0 - \partial_t := \sum_{i,j=1}^{n} \partial_{x_i}(a_{i,j}\partial_{x_j}) - \sum_{j=i}^{n} b_j \partial_{x_j} - \partial_t.$$

We assume $\mathcal{L}_0$ with nonnegative characteristic form and satisfying the Oleinik-Radkevic rank hypoellipticity condition. By using Potential Theory, these hypotheses allow to construct Perron-Wiener solutions of the Dirichlet problems for $\mathcal{L}$ and $\mathcal{L}_0$ on bounded open subsets of $\mathbb{R}^{n+1}$ and of $\mathbb{R}^n$, respectively.

Our main result is the following Thychonov-type Theorem:

Let $O := \Omega\times]0, T[$ be a bounded cylindrical domain of $\mathbb{R}^{n+1}$, $\Omega \subset \mathbb{R}^n, x_0 \in \partial\Omega$ and $0 < t_0 < T$. Then $z_0 = (x_0, t_0) \in \partial O$ is $\mathcal{L}$-regular for O if and only if x_0 is $\mathcal{L}_0$-regular for Ω.

As an application of our Main Theorem we show some regularity criteria for the boundary point in the Dirichlet problem for degenerate Ornstein- Uhlenbeck operators, as consequences of analogous criteria for Kolmogorov-Fokker-Planck equations. (Received September 14, 2018)