On Kato-Sobolev type spaces.

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We study an increasing family of spaces $\{B_k^p\}_{1 \le p \le \infty}$ by adapting the techniques used in the study of Beurling algebras by Coifman and Meyer. A weak form Wiener-Levy theorem is proved based on an integral representation formula belonging A. P. Calderón. Also we study the Schatten-von Neumann properties of pseudo-differential operators with symbols in the B_k^p spaces.