1125-30-1728   **See Keong Lee*** (`sklee@usm.my`), School of Mathematical Sciences, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia. *Integral characterization and growth properties of analytic functions defined by a differential inequality.* Preliminary report.

Let $\mathbb{D} = \{z : |z| < 1\}$ be the unit disc on the complex plane $\mathbb{C}$. The class $\mathcal{U}(\lambda, \mu)$, which consists of analytic functions f satisfying

$$\left| \left(\frac{z}{f(z)} \right)^2 f'(z) - \mu \right| < \lambda,$$

for $z \in \mathbb{D}$, $0 < \lambda \leq 1$ and $\mu \in \mathbb{C}$, will be studied. Among the properties to be investigated are the analytic characterization of the function f in $\mathcal{U}(\lambda, \mu)$, the size of the parameters μ and λ that ensure univalence, the growth and distortion theorems, the coefficient bounds and the links between $\mathcal{U}(\lambda, \mu)$ with several important geometric subclasses of analytic functions. (Received September 19, 2016)