**Spectrum of $\delta'$ interaction supported by a non-closed curve in $\mathbb{R}^2$**

We consider the Schrödinger operator in the Hilbert space $L^2(\mathbb{R}^2)$ with $\delta'$-interaction of strength $\beta(x) > 0$ supported on a non-closed finite $C^\infty$-smooth curve $\Lambda \subset \mathbb{R}^2$ with one or two free ends. We prove that essential spectrum of this operator coincides with $[0, \infty)$ for compact curve. As the main result we obtain an explicit sufficient condition for absence of discrete spectrum for such a Schrödinger operator in terms of geometric properties of $\Lambda$ and the coupling function $\beta(x)$. In the special case that $\beta$ is constant, $\Lambda$ is straight and of length $L > 0$ our condition for absence of discrete spectrum reduces to $\frac{\beta}{L} > 2\pi$. We also show for the same model, that for $0 < \frac{\beta}{L} < \frac{2}{\pi}$ negative discrete spectrum is non-empty.