

On the Kronig–Penney model in a constant electric field

SIMON LARSON

Abstract. I will discuss the nature of the spectrum of the one-dimensional Schrödinger operators

$$-\frac{d^2}{dx^2} - Fx + \sum_{n \in \mathbb{Z}} g_n \delta(x - an)$$

with $F, a > 0$ and two different choices of the coupling constants $\{g_n\}_{n \in \mathbb{Z}}$. We shall see that the nature of the spectrum changes drastically depending on the choice of parameters. Based on joint work with Rupert Frank.