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Title:Development of short electrical pulses in a schottky line periodically loaded with resonant tunneling diodes

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Abstract:The characteristics of a Schottky line periodically loaded with resonant tunneling diodes (RTDs) are discussed for the development of short electrical pulses. RTDs act as electronic switches and exhibit a pronounced N-shaped I-V characteristic even at millimetre wave frequencies. The dynamics of the line is reduced to an extended KdV equation. These dynamics are considered both within the method of perturbation and the numerical integration of the transmission equation of the line. © Springer Science+Business Media, LLC 2012.

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