The recent work has an objective to design nonlinear transmission lines (NLTL) for pulse compression.
Inside the variety of properties of a NLTL, we make an special reference to a kind of dispersion known by the name shock, which we will use to make the compression of wavefronts generated by a step-function.
The software is a tool that makes it possible to design a pulse generator with a wavefront given by the input signal, as well as, to make a study of the NLTL components like the reverse-bias Schottky diode or the coplanar waveguide.
To finalize we proceed to optimize the design of the NLTL to make it possible to generate signals with rise time of picoseconds, typical of microwave instruments that make use of this technology.