

New Scaling Laws for Beam Envelope in Optics Design, YU. ZUEV, NII EFA - An equation to transform first order beam optics with space charge is presented. The equation allows to use a common approach to the beam matching problem in devices of various kinds. An invariant of the transformation is function coupling dependent variables of conventional envelope equations. Scaling optical axis the transformation keeps beam size. As computer tool the new formalism is used to design matching optics for 433 MHz RFQ.