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Hole current confinement effects in elliptic tokamak plasmas with triangularity[1] PABLO MARTIN, ENRIQUE CASTRO, JULIO PUERTA, Universidad Simon Bolivar — The effect of hole currents in tokamak plasma confinement is analyzed here. Banana width and inward pinch due to toroidal electric field are considered for tokamak plasmas with the same ellipticity and triangularity but with or without hole currents. The banana width increases with the banana amplitude for plasmas with no-hole current, however, with hole current the maximum width happens for intermediate amplitudes. The plasma ellipticity and triangularity influences also the results, which will be shown analytic and graphically. All our calculations show that in the limit of large aspect ratio with circular plasmas shape the well known Ware Pinch is recovered. Positive triangularity will be only considered in this work. The analyses were carried out using the profiles of the toroidal density current in JT-60U and JET.

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