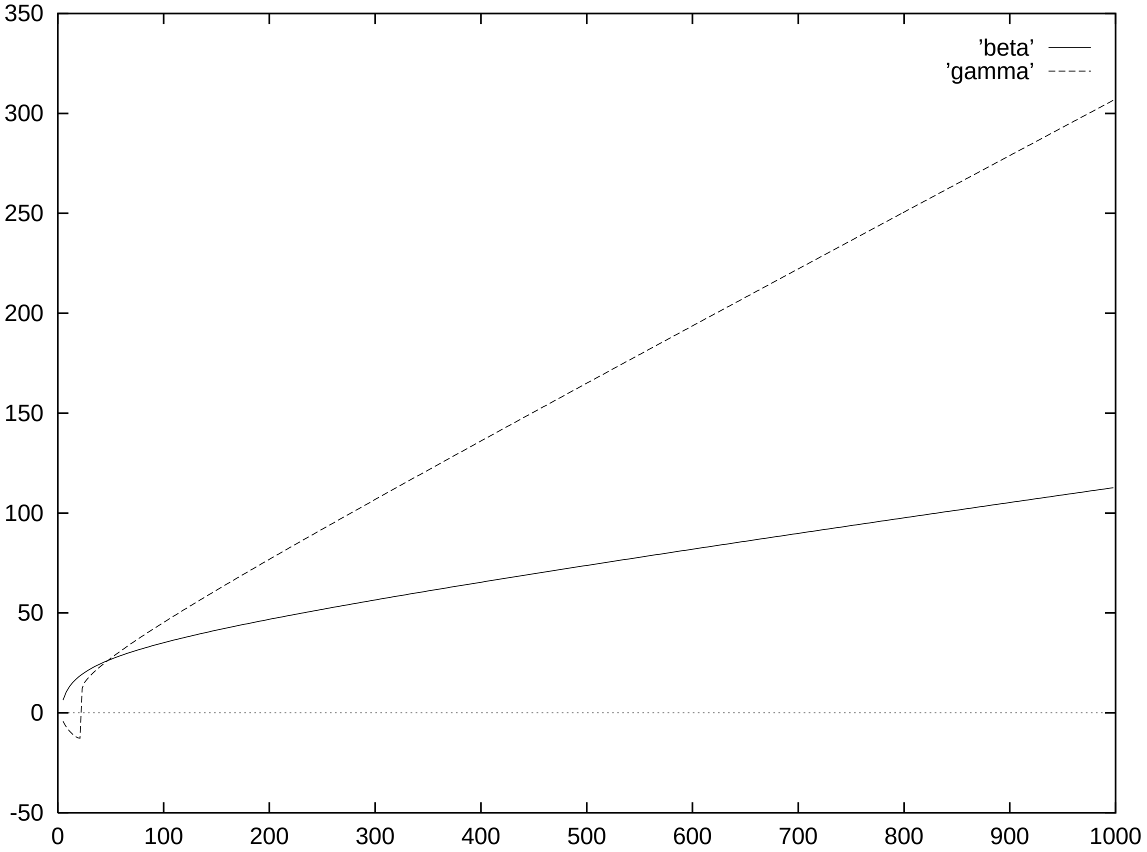

Figure 1. The coefficients β and γ as functions of m for m between 4 and 1000. For scaling reasons we have replaced B, C, D by $2B, C/2, D/8$, respectively. For each coefficient one plots $argsh(coefficient)$ as a function of m.

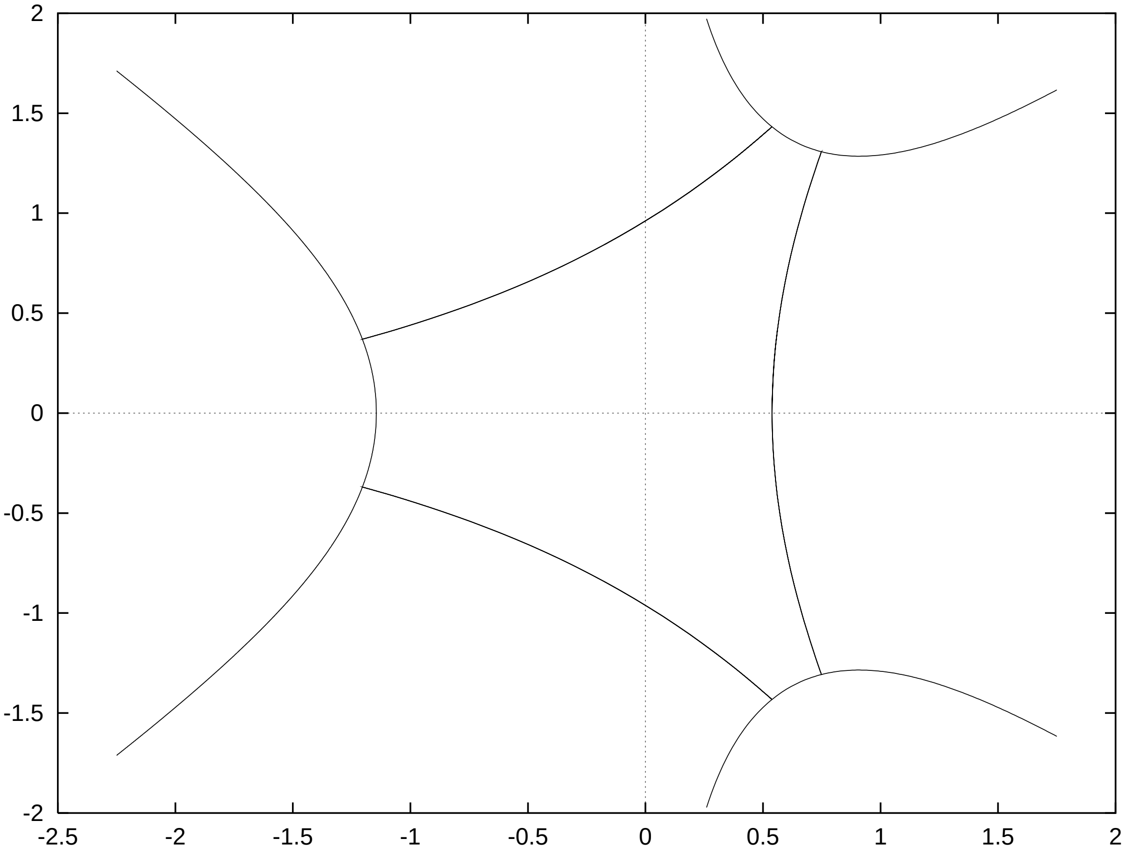

Figure 2. Zero velocity curve and (x_1, x_2) projections of the 3 simple periodic orbits, for $e = -2$.

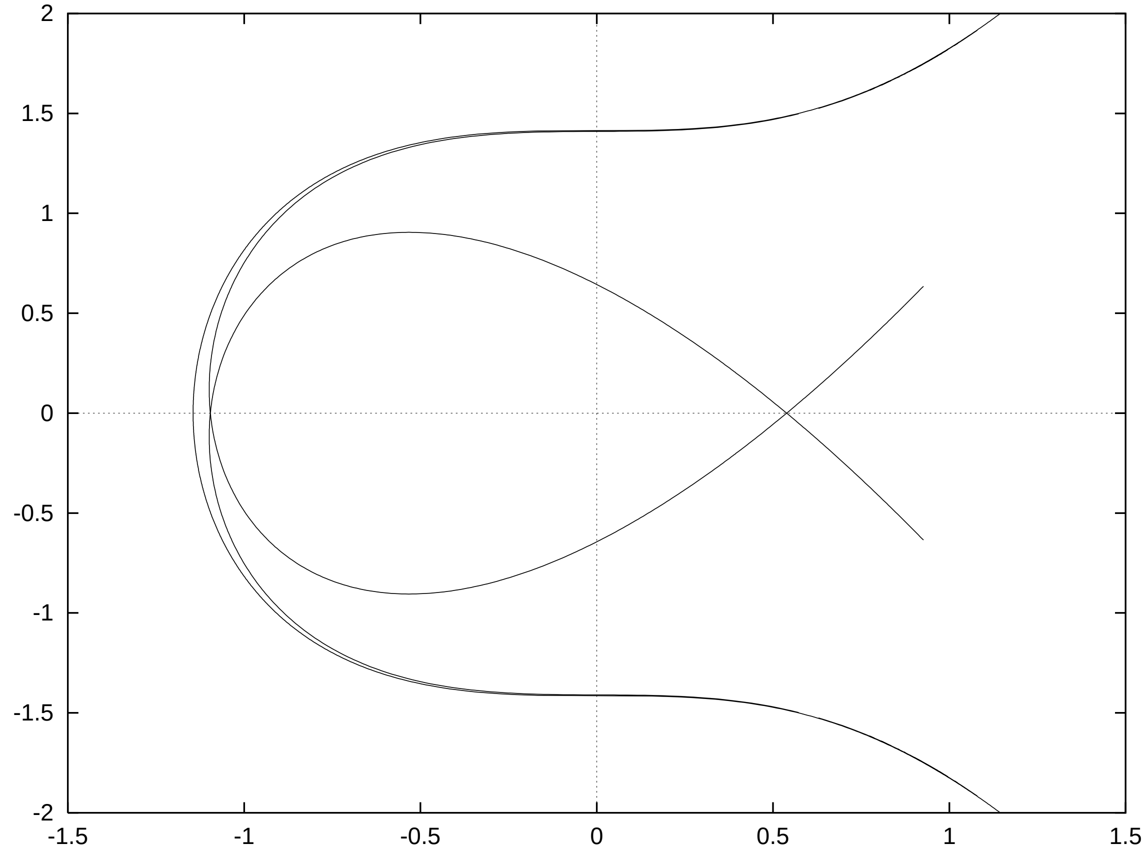

Figure 3. The boundary of the Poincaré section through $x_2 = 0$ on the (x_1, y_1) coordinates and the sections of the invariant manifolds of γ_1 for $e = -2$ and $h = 1$.

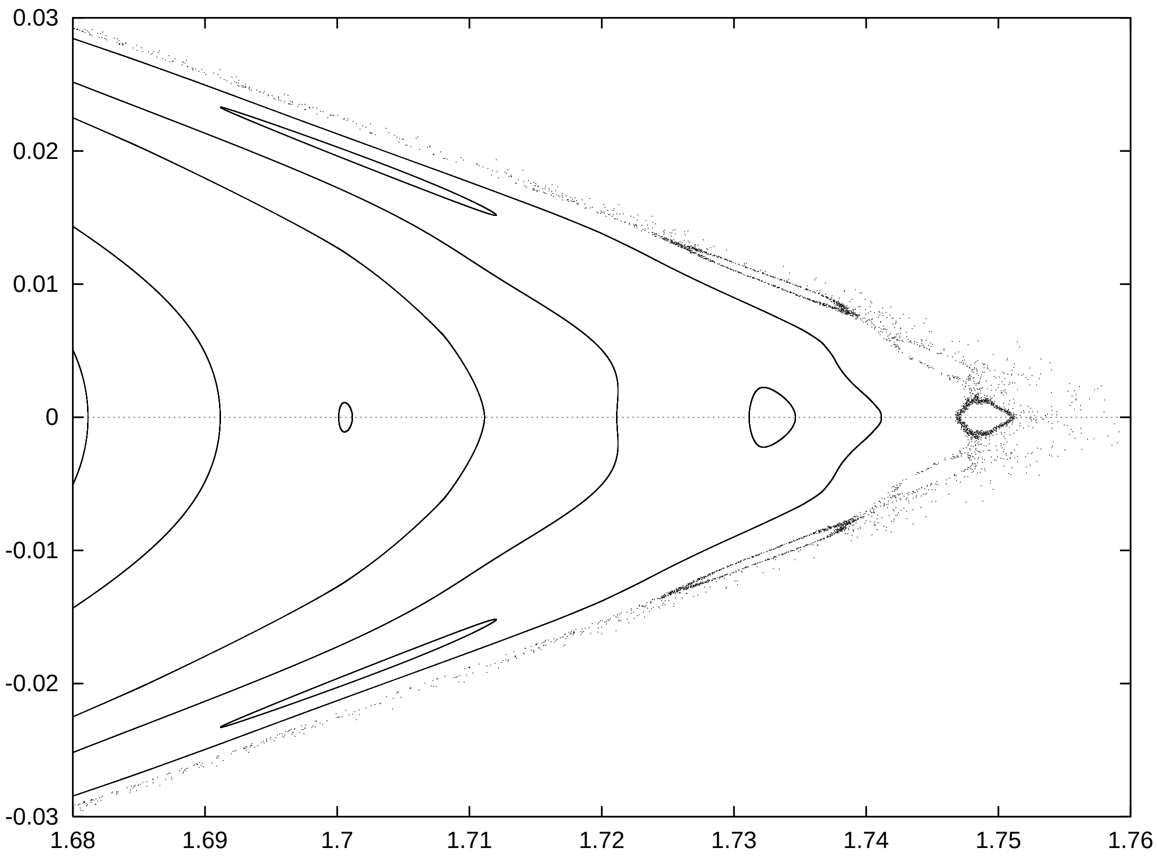

Figure 4. A part of the phase portrait of the Poincaré map through $\xi_2 = 0$ on the (ξ_1, η_1) coordinates for $e = 1.5$ and $h = 1$.