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The elliptical power law profile lens *(Corrigendum)*

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The authors would like to point out two errors in the article as it was originally published.

Due to a typographical error, Eq. (17) erroneously expresses the shear of the elliptical power law profile lens in the elliptic coordinates R and φ instead of the physical polar coordinates r and θ. The correct expression is

$$\gamma(r,\theta) = -\mathrm{e}^{\mathrm{i}2\theta}\,\kappa(r) + (1-t)\,\mathrm{e}^{\mathrm{i}\theta}\,\frac{\alpha(r,\theta)}{r}, \tag{17}$$

i.e. the same formula with the substitutions $R \to r$ and $\varphi \to \theta$. This result correctly recovers the singular isothermal ellipsoid result $\gamma = -\kappa\,(z/z^*) = -\mathrm{e}^{\mathrm{i}2\theta}\kappa$ when $t = 1$. The preceding Eq. (16) is correct.

Furthermore, Fig. 2 incorrectly contains and refers to the pseudo-caustics for power law profile lenses with slope $t > 1$. Since the main result of the original paper shows that the elliptical lenses have the same (elliptical) radial profile as the circular ones, the degenerate critical line at the origin $R = 0$ is mapped to $R = \infty$ when $t > 1$, just as in the circular case. Hence only the isothermal case $t = 1$ has a pseudo-caustic at finite radius. The dashed lines in the plot are due to a numerical error. A corrected version of Fig. 2 is shown below.

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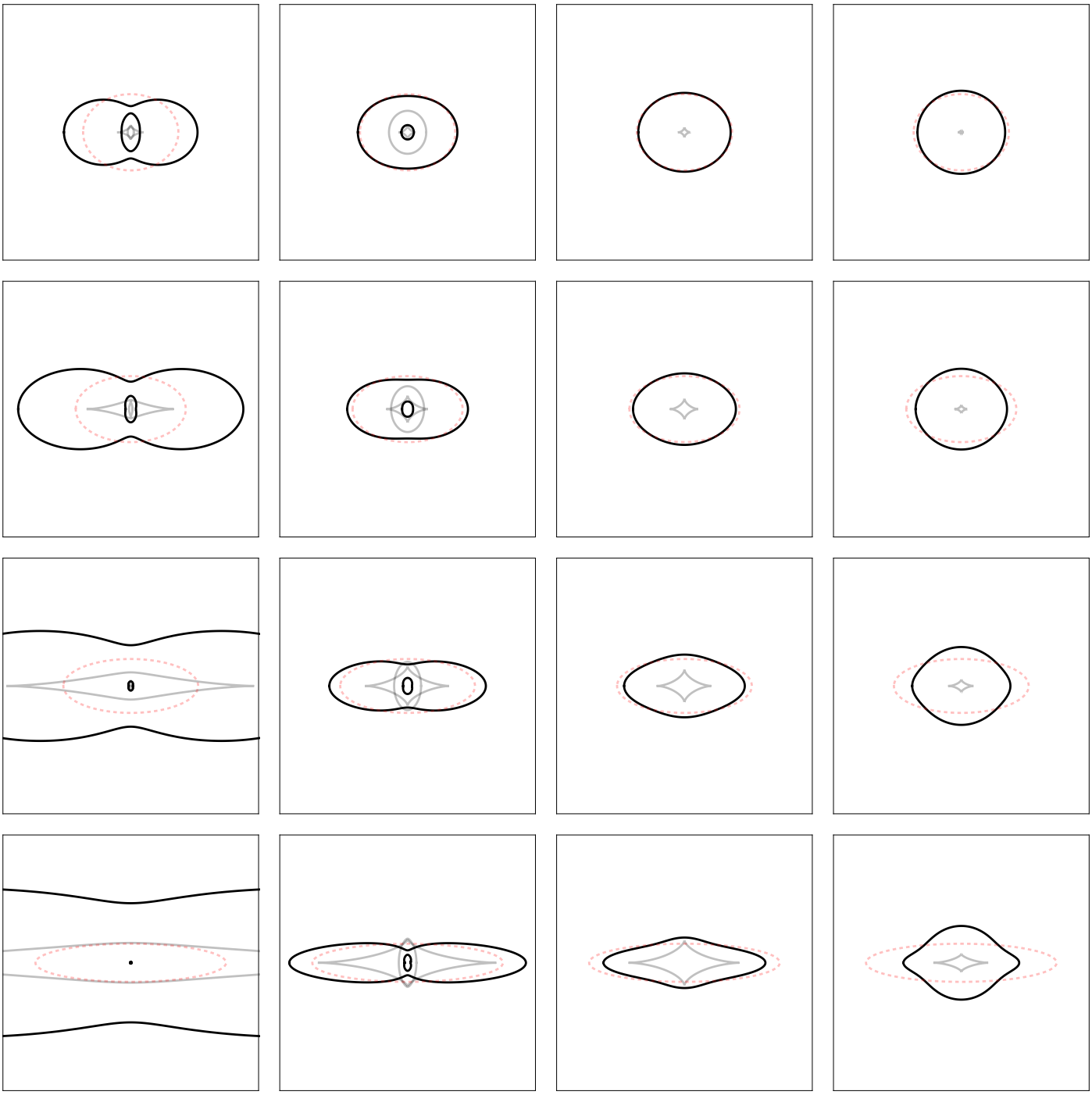

Fig. 2. Critical lines (black) and caustics (grey) of the elliptical power law profile lens. Also shown is an ellipse with semi-minor axis equal to the scale length b and axis ratio q (red, dotted). For the purpose of illustration, the scale length b decreases as $q^{1/2}$. The slope of the power law profile varies from $t = 0.25$ (*left*) to $t = 1.75$ (*right*) in steps of 0.5. The axis ratio varies from $q = 0.8$ (*top*) to $q = 0.2$ (*bottom*) in steps of 0.2.