Erratum to the paper
Boris Kruglikov, Valentin Lychagin, "Global LieTresse theorem", Selecta Mathematica, vol. 22, 1357-1411 (2016)

The running example in section 3.5 contains an error due to a typo, obtained by merging two different examples.

The derivation ∇_1 on p.1384 is not an absolute but rather a relative invariant. The invariant derivartion is obtained via division by $u\, D_y(I_1)$. Thus the correct expression is

$$\nabla_1 = \frac{1}{u} D_x - \frac{u\, u_{xy} - u_x u_y}{u\, (u\, u_{yy} - u_y^2)} D_y.$$

The invariant derivation $\nabla_2 = D_y$ remains un-changed.

This impacts the syzygies computed in section 4.5 when the example is revisited:

$$[\nabla_1, \nabla_2] = I_1 \nabla_1 - I_2^{-1} I_{3a} \nabla_2.$$

The quotient equation on p.1398 is

$$\eta v_\xi = v w_\eta - w v_\eta - \eta^{-1} v w - \xi v.$$

Then change of variables $U = -\dfrac{1}{u}$, $V = \dfrac{w}{yv}$ transforms it to

$$U_x - V_y = \tfrac{x}{y}\, U.$$

The rest of formulae including the expressions for $P_G^{\mathcal{E}}(z)$ and $P_{\mathcal{Q}}(z)$ are fine.