Erratum to the paper


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

The derivation $\nabla_1$ on p.1384 is not an absolute but rather a relative invariant. The invariant derivation 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:

$$[\nabla_1, \nabla_2] = I_1 \nabla_1 - I_2^{-1} I_3 \nabla_2.$$

The quotient equation on p.1398 is

$$\eta v \xi = vw \eta - wv \eta - \eta^{-1} vw - \xi v.$$

Then change of variables $U = -\frac{1}{u}$, $V = \frac{w}{y v}$ transforms it to

$$U_x - V_y = \frac{z}{y} U.$$

The rest of formulae including the expressions for $P_G^e(z)$ and $P_Q(z)$ are fine.