A NOTE OF CORRECTION

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Professor L. A. Santaló has called my attention to errors in the metric characterizations (12) and (20) of my paper entitled Invariants of intersection of certain pairs of space curves, Bull. Amer. Math. Soc. vol. 55 (1949) pp. 623–628. The correction of these will be stated as follows.

1. In the first place, we consider the two curves $C$, $\overline{C}$ given by the expansions (1), (2). Through the origin 0 draw the $X'$-axis in the $XZ$-plane perpendicular to the $Z$-axis, and then draw the $Y'$-axis perpendicular to the $X'Z$-plane. Let $\theta, \phi, \psi$ be respectively the angles between the $X'$, $X'$-axes, the $Y'$, $Z$-axes, and the osculating planes $\tau, \overline{\tau}$. If $x', y', z'$ are the coordinates of a point in space referred to the new orthogonal coordinate system $0 = X'Y'Z$, then the expansions of the curves $C, \overline{C}$ in the neighborhood of the point 0 become

$C$: $y' = -\tan \psi x'^3 + \cdots, \quad z' = \tan \theta x' + a \tan^2 \psi x'^2 + \cdots$;

$\overline{C}$: $x' = \cot \psi y' - \rho \cot \psi y'^3 + \cdots, \quad z' = \csc \psi \cot \phi y' + \alpha y'^2 + \cdots$.

Thus we can easily obtain the following metric characterization, instead of (12), of the invariant $I$ given by equation (6):

$I = -\frac{\cos^3 \theta}{\sin^3 \phi} \frac{RT}{TR}$.

2. We next consider the two curves $C$, $\overline{C}$ given by the expansions (15), (16). Without loss of generality we may assume the $Z$-axis to be perpendicular to the $Y$-axis. Through the origin 0 draw the $X'$-axis perpendicular to the $YZ$-plane. Let $\omega, \theta$ be respectively the angles between the $X'$, $Y$-axes, and the osculating planes $\tau, \overline{\tau}$. If $x', y', z'$ are the coordinates of a point in space referred to the new orthogonal coordinate system $0 = X'YZ$, then the expansions of the curves $C, \overline{C}$ in the neighborhood of the point 0 become

$C$: $z' = \frac{1}{\tan \theta} (x' - rx'^3) + \cdots$,

$y' = \frac{1}{\sin \theta \tan \omega} (x' - ax'^2) + \cdots$;

$\overline{C}$: $x' = -\rho \sin^3 \theta \tan^3 \omega y'^3 + \cdots$.

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Thus we can easily obtain the following metric characterization, instead of (20), of the invariant $J$ given by equation (19):

$$J = \left(\frac{2 \sin \omega}{3 \sin \theta}\right)^4 \frac{R^2 R_4}{T^6 T'_6}.$$