Smarandache Curves Obtained from Salkowski Curve

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ABSTRACT

Salkowski curve is a special curve whose first curvature variable, second curvature constant. Similar type Anti-Salkowski curve is the first curvature variable, second curve constant is a special curve. In this paper, tackled Salkowski curves that were gained to science thanks to studies DNA on the spiral of German a chemist Ernst Leopold Salkowski (1844-1923). First, \( \{T,N,B\}\) the Frenet frame obtained when received as a position vectors the Frenet vectors of the Salkowski curve, Smarandache curves were obtained using this Frenet frame. Tangent vector \( T \) with principal normal vector \( N \) for \( TN\)-Smarandache, tangent vector \( T \) with binormal vector \( B \) for \( TB\)-Smarandache, binormal vector \( B \) with principal normal vector \( N \) for \( NB\)-Smarandache, tangent vector \( T \) the binormal vector \( B \) principal normal vector \( N \) for \( TNB\)-Smarandache and this of Smarandache curves calculated second curvature with first curvature for each. Second, \( \{T^*,N^*,B^*\}\) the Frenet frame obtained when received as a position vectors the Frenet vectors of the Salkowski curve, Smarandache curves were obtained using this Frenet frame. Tangent vector \( T^* \) with principal normal vector \( N^* \) for \( T^*N^*\)-Smarandache, tangent vector \( T^* \) with binormal vector \( B^* \) for \( T^*B^*\)-Smarandache, binormal vector \( B^* \) with principal normal vector \( N^* \) for \( N^*B^*\)-Smarandache, tangent vector \( T^* \) the binormal vector \( B^* \) principal normal vector \( N^* \) for \( T^*N^*B^*\)-Smarandache and this of Smarandache curves calculated second curvature with first curvature for each.

Key Words: Salkowski curve, smarandache curve.

REFERENCES


