

Werk

Label: Table of literature references

Jahr: 1976

PURL: https://resolver.sub.uni-goettingen.de/purl?31311157X_0101|log77

Kontakt/Contact

Digizeitschriften e.V.
SUB Göttingen
Platz der Göttinger Sieben 1
37073 Göttingen

✉ info@digizeitschriften.de

$$\begin{aligned}
& + \frac{1}{2}F_H[\beta\gamma + \gamma\delta + (a-c)(B+D) - \gamma^2 - \gamma\alpha + (a-c)(C + \\
& + aK + E)] + (a-c)\{F_{KH}(\frac{1}{2}\beta + \frac{1}{2}\delta) + F_{KK}(a\delta + c\beta)\}(a\gamma + \\
& + c\alpha + a\delta + c\beta) + F_K\{a\gamma\delta - 2a\beta\gamma + (a-c)\beta\gamma + 3c\beta\gamma + \\
& + (a-c)\alpha\delta + a(a-c)D + c(a-c)B + a(a-c)E + \\
& + c(a-c)C - 3a\gamma^2 + (a-c)\beta\delta + 2c\gamma^2 - c\alpha\gamma + c(a^2 - ac)K + \\
& + (a-c)\beta\delta\} + (a-c)v_2S = 0.
\end{aligned}$$

Multiplying the first two equations (1.13) by $(-\frac{1}{2}F_H - cF_K)$ and $(-\frac{1}{2}F_H - aF_K)$ resp., and using (3.9), we can eliminate A, B, C, D and E , and we get

$$\begin{aligned}
(3.10) \quad & (\frac{1}{2}F_H + cF_K)f_{11} + (\frac{1}{2}F_H + aF_K)f_{22} - \{\frac{1}{2}F_HK + 2F_KH\}2f = \\
& = (a-c)(v_1v_1 - v_2v_2)F + \frac{1}{2}F_H[3(\beta - \frac{1}{2}\delta)^2 + 3(\gamma - \frac{1}{2}\alpha)^2 + \\
& + \beta^2 + \gamma^2 + \frac{1}{4}\alpha^2 + \frac{1}{4}\delta^2] + F_K\left[a\left\{\delta - \left(\frac{1}{2} + \frac{c}{a}\right)\beta\right\}^2 + \right. \\
& + a\left(\frac{11}{4} - \frac{c^2}{a^2}\right)\beta^2 + c\left\{\alpha - \left(\frac{1}{2} + \frac{a}{c}\right)\gamma\right\}^2 + c\left(\frac{11}{4} - \frac{a^2}{c^2}\right)\gamma^2\left. \right] + \\
& + (a-c)F_{HH}(v_1 + v_2)H \cdot (v_2 - v_1)H + \\
& + (a-c)F_{HK}(v_1 + v_2)H \cdot (v_2 - v_1)K + \\
& + (a-c)F_{KH}(v_1 + v_2)K \cdot (v_2 - v_1)H + \\
& + (a-c)F_{KK}(v_1 + v_2)K \cdot (v_2 - v_1)K.
\end{aligned}$$

The result follows.

Bibliography

- [1] A. Švec: Several new characterizations of the sphere. Czech. Math. J., 25 (100) 1975, 645—652.

Author's address: Dept. of Geometry, Military Technical College, Cairo (E.A.R.).