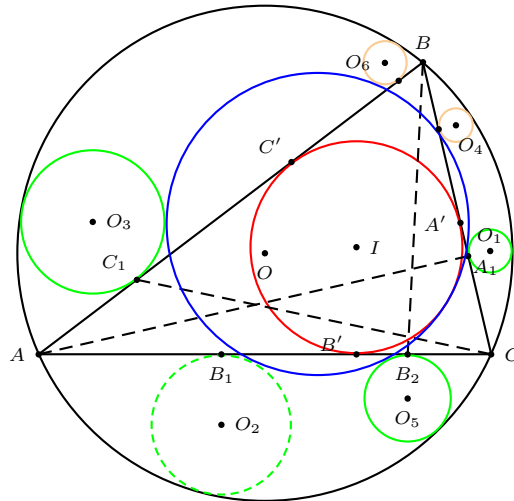


Correction to

A Feuerbach Type Theorem on Six Circles

Lev Emelyanov

Floor van Lamoen has kindly pointed out that the necessity part of the main theorem of [1] does not hold. In the layout of Figure 1 there, it is possible to have a circle (O_5) outside the triangle, tangent to both the circumcircle and the “new” circle, but to AC at a point B_2 between B' and C . The points of tangency of the circles (O_1) , (O_5) and (O_3) with the sides of triangles do not satisfy Ceva’s theorem. Likewise, it is also possible to place circles (O_4) and (O_6) on the sides BC and AB so that the points of tangency do not satisfy Ceva’s theorem.



We hereby modify the statement of the theorem as follows.

Theorem. Let A_1, B_1, C_1 be the traces of an interior point T on the side lines of triangle ABC . Construct three circles $(O_1), (O_2)$ and (O_3) outside the triangle which are tangent to the sides at A_1, B_1, C_1 respectively and also tangent to the circumcircle of ABC . The circle tangent externally to these three circles is also tangent to the incircle of triangle ABC .

References

- [1] L. Emelyanov, A Feuerbach type theorem on six circles, *Forum Geom.*, 1 (2001) 173 – 175.

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