Review of: "Product of Distributions Applied to Discrete Differential Geometry"

Tarik Faouzi[1]

1 Universidad de Santiago de Chile

Potential competing interests: No potential competing interests to declare.

The author gives a formula for evaluating the product of step discontinuous and delta functions. He studies the total curvature of a polyhedron vertex where curvature is infinite and total curvature is finite and therefore the Gaussian curvature can be represented by a Dirac delta function.

Finally, he studies the Gauss-Bonnet theorem for smooth surfaces and the Descartes deficiency angle theorem for polyhedron.

The paper is clear but not well written. I have some comments:

1. Introduction: what does mean D'?
2. Introduction: he mathematics expression must be written differently. For example, D' must be replace by D'.
3. Section 2: in approach1, please correct $g_n(x)=g(nx)$.
4. Please correcto $F (u(x))$.
5. Correct $F (u(0+)) – F(u(0–)) = F (1) – F (0)$.
6. Page 4: correct $sign(x) $.
7. Page 4: I don't understand the meaning of '$\chi= 2x – 1$'.
8. I think that k is equal to a.
9. There are many redaction errors such as missing commas.
10. I don't understand the Equation (18). The author want to write $(g_{ij})_{i,j\in \{1,2\}}$.
11. Page 6: The author writes "$g^{i,j}$". Do the author mean g_{ij}?.
12. Please, try to check all the formulas.