Colloquium by Fefferman

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Study $Ay=b$ where A & b are cont. functions of $x \in B^n$.

Is there a continuous solution?

Example. Solve

$$x^2F_1 + y^2F_2 + xyz^2F_3 = xyz$$

For the F_i's.

Can't! Looking at $(x,0,z)$ get $F_1(x,0,z)=0$

Likewise $F_2(0,y,z)=0$

So $F_1(0,0,z) = F_2(0,0,z) = 0$

but when $(x,x,z) \longrightarrow (0,0,z)$ get

$F_3(0,0,z) = \frac{1}{z}$ not cont. at $z=0$.