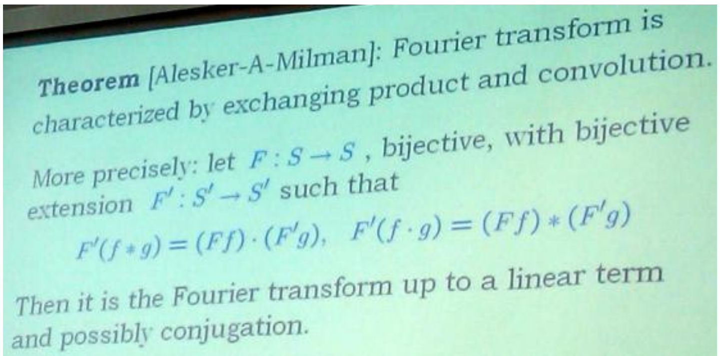
Artstein-Avidan @ Coxeter: Multiplicative transforms and characterization of the Fourier transform

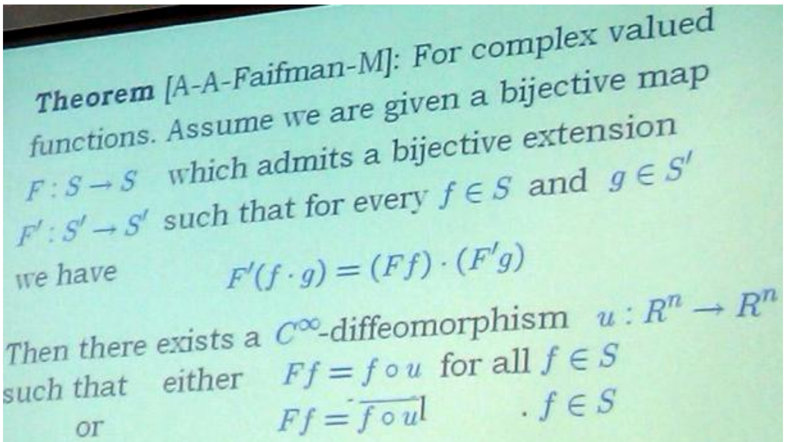
September-21-10
3:30 PM

Schwartz space: $\int \frac{\partial^\alpha f}{\partial x^\alpha}(1+|x|^\beta)\,dx < \infty$

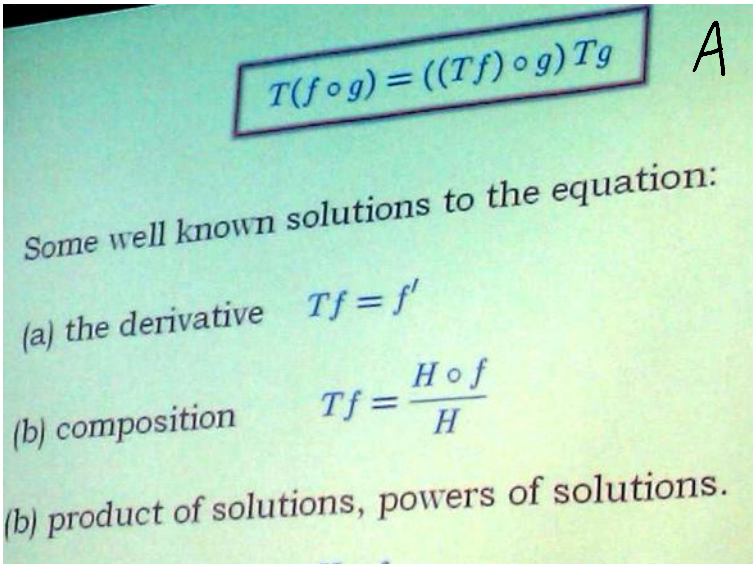
Theorem On Schwartz space, the Fourier transform is determined by the property that it interchanges products with convolutions.



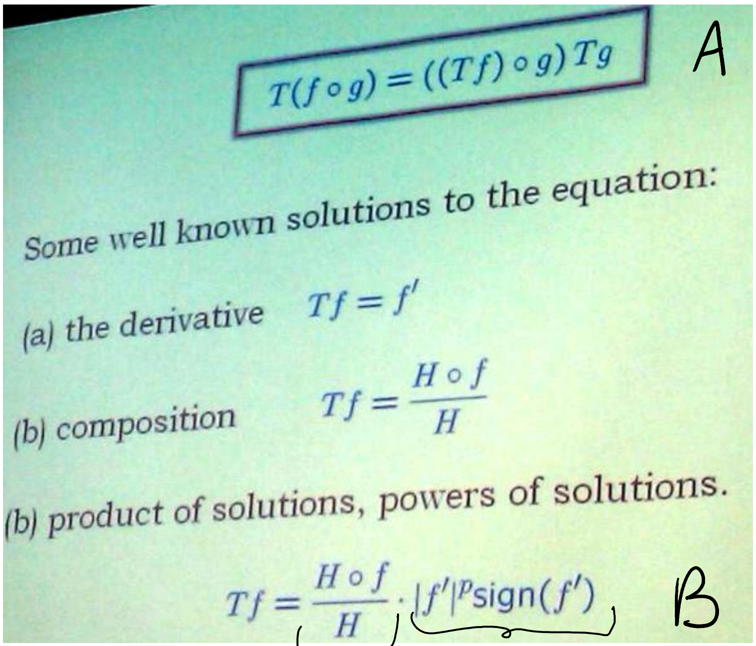
Here S is the Schwartz space & S' its dual.



On to the chain rule:



Theorem B is the only solution of A, in some C^1 setting. In C^0 there are no solution.



co-boundary

co-homology.

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