

Pg 142

4/16/94
7:00

Tom,

I NEGLECTED TO MENTION ONE STAR:

$$\cdot \left(\frac{\partial}{\partial x_j} \right)$$

THIS MORNING ONE WAS REPORTED AS SO (L) IN THE SKY. I AM INCLINED TO TAKE THIS AS A SUGGESTION TO DEVELOP THE NOTION OF DIFFERENTIAL TRANSFORMS. THE BRIT. VOL 13, PG 515 TOUCHES BRIEFLY ON THIS:

- ANALOGOUS TO THE PREVIOUS FORMULA (604) IS THE KEY EQUATION THAT IS THE TRANSFORM OF THE PARTIAL DERIVATIVE OF f WITH RESPECT TO ONE OF THE VARIABLES EQUAL TO A PRODUCT OF i TIMES THE VARIABLE TIMES THE TRANSFORM OF f . (EQ 613)

$$\cdot \text{EQ 613 IS } \frac{\partial}{\partial x_j} f(x) = i x_j \hat{f}(x)$$

IN MY VIEW THIS SOLIDIFIES THE VIABILITY OF THE EXPANSION OF PARTIAL DIFFERENTIAL TRANSFORMS. THIS TECHNIQUE SHOULD BE PARTICULARLY USEFUL IN DISTRIBUTION AND FILAMENT THEORY. YOU MAY WANT TO EVALUATE THIS.

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MAILED TO: Tom Kowson

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