Richard Fleissner
1942 - 1983

It is with profound regret that we inform our readers of the untimely death of Richard Fleissner. The success of the Exchange is due in large part to his effort and his contributions will be sorely missed. This volume of The Exchange is dedicated to his memory.

Richard Fleissner

July 30, 1942 - July 25, 1983

Richard Fleissner was born in Wauwatosa, a suburb of Milwaukee, Wisconsin. When Dick (sometimes known as Fleiss) graduated in 1960 from Marquette High School, he enlisted in the Air Force. Then, after a year of studying Russian at Syracuse University, he was involved until 1964 with translating Russian communications. At this point he returned to Milwaukee where he received his bachelor's (1967), masters (1968), and doctorate (1974) degrees in mathematics at the University of Wisconsin-Milwaukee. He was a "straight A" student throughout and as an undergraduate was very involved in student organizations. (He was president of the student union, chairman of the forum committee, president of the union policy board, and a member of the student life and interests committee.) He and his wife, Carol met as undergraduates; she became an elementary school teacher and one of the things they had in common was a dedication to excellence in teaching. Dick and Carol resided in Macomb, Illinois where Dick served as a lecturer, assistant professor, and finally associate professor at Western Illinois University. He was a gourmet cook and those who knew him probably remember attending one of the numerous parties which he hosted. Dick was instrumental in the success of the Real Analysis Exchange, serving as associate editor, contributing his own papers, refereeing those of others, assisting in the Exchange's preparation, and providing it with an excellent survey article [6].

Richard was interested in analysis and especially in the gaps in the subject matter which involved calculus. He had extensive knowledge of functions of a real variable and his ability to construct examples in this field was the starting point of much of his research. His Ph.D. thesis was the basis for two articles [2 & 3]. There he characterized the multiplier class for derivatives; that is, the class of functions whose product with every derivative is a derivative. He gave a characterization of the multiplier class of approximate derivatives of continuous functions in [4]. The class of functions which can be transformed to a differentiable function by means of an outer homeomorphism is characterized in [5] and the class which can be so transformed by an inner homeomorphism is shown in [7] to be the continuous functions of generalized bounded variation in the narrow sense. In [9] Richard characterized the multiplier class for Baire 1 Darboux functions.

His remaining papers are somewhat miscellaneous and, for the most part, answer questions posed by others rather than represent his own immediate interests. At the time of his thesis, he wrote [1] which shows the independence of definitions of almost continuity. In [8], it is shown that summability of an approximate derivative over the interior of the set of points where the derivative exists does not imply summability; whereas, summability over the set of points where the derivative exists does imply summability. In [10 & 11], bizarre continuous functions are constructed which are relevant to the theory of lambda and harmonic bounded variation. His expository article [12] gives examples which illuminate the character

of the graphs of nowhere differentiable functions. Finally, [13] is a joint paper investigating the smallest integral needed to include Lebesque integrable functions and derivatives.

On the weekend before his death, Dick was visiting Kansas City. He left early Monday morning and at noon he passed a semi on Highway 6 just west of Ewing, Mo. He needed to return quickly to his lane to avoid an oncoming car, went onto the right shoulder, lost control of the car, and veered across the left lane where there was no shoulder, but rather, a five foot drop. His car landed upside down, tumbled, and he was dead of head injuries. Those of us who knew him as a friend have lost a loyal friend.

J. Foran

1. An Almost Continuous Function, Proc. Amer. Math. Soc.,
        45(1974) 346-348.
2. On the Product of Derivatives, Fund. Math.,
        88(1975) 173-178.
3. Distant Bounded Variation and Products of Derivatives,
        Fund. Math., 94(1977) 1-11.
4. Products of Approximative Derivatives, Real Analysis Exchange,
        1(1976) 31-37.
5. Transformations of Differentiable Functions (with J. Foran),
        Coll. Math., 39(1978) 277-284.
6. Multiplication and the Fundamental Theories of Calculus -
        A Survey, Real Analysis Exchange, 2(1976) 7-34.
7. A Note on Differentiable Functions (with J. Foran),
        Proc. Amer. Math. Soc., 69(1978) 56.
8. Conditions Implying the Summability of Approximate Derivatives
        (with R. J. O'Malley) Coll. Math., 41(1979) 257-263.
9. A Note on Baire 1 Darboux Functions, Real Analysis Exchange,
        3(1978) 104-106.
10. A Note on λ-Bounded Variation (with J. Foran), Real Analysis
        Exchange, 4(1979) 185-191.
11. A Note on Garsia-Sawyer Class (with J. Foran), Real Analysis
        Exchange, 6(1981) 245-246.
12. What is a Picture Worth?, Pentagon (1981) 123-135.
13. The Minimal Integral which Includes Lebesque Integrable
        Functions and Derivatives (with A. M. Bruckner & J. Foran),
        Coll. Math., (to appear).