

Warren Johnson Wins Lester R. Ford Award

(I asked Warren Johnson of Bates College to comment on his winning a Lester Ford Award at the MathFest this Summer. This is what he sent me. –Editor)

Frank Ford asked me to write something about being one of the winners of a Lester R. Ford this year for my article *The Curious History of Faà du Bruno's Formula*, which appeared in the March 2002 issue of the *Monthly*. First let me say once more what a joy and an honor it was for me to receive this award. As I said in my brief impromptu acceptance speech in Boulder, this is the greatest award I ever expect to receive. I hope to write more articles of a similar nature in my career, and if I'm really lucky maybe I'll win something like this again, but even then I don't think it would beat this experience. This subject was the primary focus of my research for a period of several years, but I was thinking about some other things too, and that turned out to be very important. When I found Faà du Bruno's Formula in Scherk's 1823 thesis I had no inkling that it was going to be there; I was trying to find out what he knew about Euler numbers (the Taylor series coefficients of $\sec x + \tan x$). And I was only at the Library of Congress that day because I had miscalculated the dates of the January 2000 AMS meeting and arrived in Washington DC a day early. I bought Lacroix's calculus book largely because it has a very nice summary of what was known in the early 1800s about Lagrange's series. I worried for several months that I really shouldn't have spent \$600 for it, but then I found Faà du Bruno's Formula there, and I felt it had paid for itself. I can't resist telling another story, even though it doesn't concern this project directly. In June 2002 I discovered some peculiar generalizations of Leibniz's rule for the n -th derivative of a product of two functions. I was still thinking about Lagrange's series then, and in August 2002 I went to Harvard to look up (among other things) a 1795 paper of Pfaff on the subject. I was shocked to find equivalent forms of my generalized Leibniz rules there. When I got back to Maine I had another surprise in store: it suddenly occurred to me that there hadn't been anything on Lagrange's series in Pfaff's paper. So I checked the reference again, and sure enough, I had looked at the wrong paper. One of the main things that I hope I've learned from doing the Faà du Bruno's project and others like it is: always track down any reference that you possibly can, and always keep your eyes open for anything else of interest when doing so. Also, revise about a thousand times