

1014-Z1-1513 **John E. Beam*** (beam@uwosh.edu), Mathematics Department, University of Wisconsin Oshkosh,
800 Algoma Blvd., Oshkosh, WI 54901-8631. *Defining the Integral for Coherent Probabilities.*

In the 1930's, around the same time that Kolmogorov developed the measure-theoretic axioms for probability theory, Bruno de Finetti proposed a more general model, requiring no structure on the domain. For perhaps two reasons, de Finetti's work has been followed by relatively few people: his mathematical style and terminology are nonstandard; the mathematical framework is largely undeveloped. (In particular, there has been no systematic development of the integral.) Using the language of traditional measure theory, I aim to address the second issue by introducing a theory of integration for de Finetti's probabilities. (Received September 28, 2005)