

[Herer, Wojciech](#)

**Mathematical expectation in the sense of Doss of a random variable with values in a metric space. (Espérance mathématique au sens de Doss d'une variable aléatoire à valeurs dans un espace métrique.)** (French) [Zbl 0609.60002](#)  
*C. R. Acad. Sci., Paris, Sér. I* 302, 131-134 (1986).

Let  $f$  be a random variable with values in a metric space  $X$ . We define (developing an idea of *S. Doss* [*Bull. Sci. Math., II. Ser.* 73, 1–26 (1949; [Zbl 0033.28902](#)))] mathematical expectation of  $f$  as a closed, bounded, non empty subset of  $X$  and conditional expectation of  $f$  with respect to a  $\sigma$ -algebra as a random set.

Reviewer: Wojciech Herer

**MSC:**

[60B05](#) Probability measures on topological spaces

Cited in **3** Documents

**Keywords:**

[conditional expectation](#); [random set](#)