

**Bru, Bernard; Bru, Marie-France; Chung, Kai Lai**  
**Borel and the St. Petersburg martingale.** (English) Zbl 1170.01367  
*J. Électron. Hist. Probab. Stat.* 5, No. 1, Article 3, 58 p. (2009).

Summary: This paper examines – by means of the example of the St.Petersburg paradox – how Borel expositied the science of his day. The first parts ketches the singular place of popularization in Borel’s work. The two parts that follow give a chronological presentation of Borel’s contributions to the St. Petersburg paradox, contributions that evolved over a period of more than fifty years. These show how Borel attacked the problem by positioning it in along – and scientifically very rich – meditation on the paradox of martingales, those systems of play that purport to make a gambler tossing a coin rich. Borel gave an original solution to this problem, anticipating the fundamental equality of the nascent mathematical theory of martingales. The paradoxical role played by Félix Le Dantecin the development of Borel’s thought on these themes is highlighted. An appendix recasts Borel’s martingales in modern terms.

This paper was originally published in French as [“Borel et la martingale de Saint-Pétersbourg”. *Revue d’histoire des mathématiques* 5, 181–247 (1999)].

**MSC:**

**01A60** History of mathematics in the 20th century  
**62-03** History of statistics

Cited in **1** Document

**Full Text:** [EuDML Link](#)