



Volume 8, Issue 3, Article 67

On a Uniformly Integrable Family of Polynomials Defined on the Unit Interval

Authors: [Alexandre Leblanc](#), [Brad C. Johnson](#),

Keywords: Uniform integrability, Bernstein polynomials, Probability inequalities, Combinatorial inequalities, Completely monotonic functions.

Date Received: 27/10/06

Date Accepted: 24/07/07

Subject Codes: Pri: 05A20, 26A48; Sec: 60C05.

Editors: [George P. H. Styan](#),

Abstract: In this short note, we establish the uniform integrability and pointwise convergence of an (unbounded) family of polynomials on the unit interval that arises in work on statistical density estimation using Bernstein polynomials. These results are proved by first establishing/generalizing some combinatorial and probability inequalities that rely on a new family of completely monotonic functions.



[Download Screen PDF](#)



[Download Print PDF](#)



[Send this article to a friend](#)



[Print this page](#)

search

[\[advanced search\]](#)

copyright 2003

[terms and conditions](#)

[login](#)