

1056-Z1-332

**Javad Namazi\*** ([namzi@fdu.edu](mailto:namzi@fdu.edu)), 285 Madison avenue, Madison, NJ 07940. *A Lagrange Interpolation Mean Convergence.*

Let  $\alpha$  and  $\beta$  be two non-negative finite measures on  $[-1, 1]$ . Let  $P_{n,\alpha}$  be the orthogonal polynomial of degree  $n$  with respect to  $\alpha$  and let  $L_{n,\alpha}(f)$  be the interpolation polynomial of degree  $n - 1$  that agrees with  $f$  at the roots of  $P_{n,\alpha}$ . We investigate conditions on  $\alpha$  and  $\beta$  that guarantee the convergence of  $L_{n,\alpha}(f)$  in  $L^p_\beta$  norm for  $f$  in  $C[-1, 1]$ . (Received August 29, 2009)