

## WEIGHTED $L^p - L^q$ INEQUALITIES FOR OSCILLATORY INTEGRAL OPERATORS

LESLIE C. CHENG

*Mathematics subject classification (2000):* 42A38, 42A50.

*Key words and phrases:* Oscillatory integrals, weighted inequalities, almost orthogonality.

### REFERENCES

- [1] CHENG, L. AND PAN, Y.,  *$L^p$  estimates for oscillatory integral operators*, Proc. Amer. Math. Soc. **127** (1999), 2995–3002.
- [2] COTLAR, M., *A combinatorial inequality and its application to  $L^2$  spaces*, Rev. Math. Cuyana **1** (1955), 41–55.
- [3] GARCÍA-CUERVA, J. AND RUBIO DE FRANCÍA, J.L., *Weighted norm inequalities and related topics*, North-Holland Math. Studies, No. 114, 1985.
- [4] KNAPP, A. AND STEIN, E., *Intertwining operators for semi-simple groups*, Ann. of Math. **93** (1971), 489–578.
- [5] PAN, Y., *Uniform estimates for oscillatory integral operators*, Jour. Func. Anal. **100** (1991), 207–220.
- [6] PAN, Y., SAMPSON, G. AND SZEPTYCKI, P.,  *$L^2$  and  $L^p$  estimates for oscillatory integrals and their extended domains*, Studia Math. **122** (1997), 201–224.
- [7] PHONG, D.H. AND STEIN, E.M., *Hilbert integrals, singular integrals, and Radon transforms I*, Acta Math. **157** (1986), 99–157.
- [8] PHONG, D.H. AND STEIN, E.M., *On a stopping process for oscillatory integrals*, Jour. Geom. Anal. **4** (1994), 105–120.
- [9] RICCI, F. AND STEIN, E.M., *Harmonic analysis on nilpotent groups and singular integrals I: Oscillatory integrals*, Jour. Func. Anal. **73** (1987), 179–194.
- [10] STEIN, E.M., *Problems in harmonic analysis related to curvature and oscillatory integrals*, Proc. Internat. Congr. Math. **1** (1986), 196–221.
- [11] STEIN, E.M., *Oscillatory integrals in Fourier analysis*, Beijing Lectures in Harmonic Analysis, Princeton University Press, Princeton, NJ, 1986, 307–356.
- [12] STEIN, E.M., *Harmonic Analysis: Real-Variable Methods, Orthogonality and Oscillatory Integrals*, Princeton University Press, Princeton, NJ, 1993.
- [13] STEIN, E.M. AND WEISS, G., *Introduction to Fourier Analysis on Euclidean Spaces*, Princeton University Press, Princeton, NJ, 1971.