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Kimberly Hopkins* (khopkins@math.utexas.edu), The University of Texas at Austin, Department of Mathematics, C1200, Austin, TX 78712. A partial generalization of the Gross-Kohnen-Zagier theorem to higher weight modular forms.

In the paper, 'Heegner points and derivatives of L-series II', Gross, Kohnen, and Zagier proved a seminal result relating the positions of Heegner divisors on a line in the Jacobian of the modular curve to Fourier coefficients of half-integer weight modular forms. We formulate a conjecture which partially generalizes their theorem to higher weight modular forms, and present our current results towards its proof. (Received September 18, 2009)