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Yin Tat Lee* (YinTatLee@gmail.com), Room 1903, 421 King's Road, Hong Kong. *Wave equations on graphs and fractals.*

Instead of using spectral decomposition to understand the wave equation, we provide two numerical methods based on approximating the fractals by graphs and quantum graphs. Also, we use that method to study the wave equation on the regular tree. Finally, we propose a technique to avoid combinatorics problems when calculating the wave kernel. (Received August 04, 2010)