Some Books on Wavelets

Gilbert Strang, Truong Nguyen. *Wavelets and Filter Banks.* Easy to read, excellent exposition. Somewhat simplified math, emphasis on discrete aspects of wavelets and on filter design for wavelets. This book is the main reference for the lectures.

Martin Vetterli, Jelena Kovaĉević. *Wavelets and Subband Coding.* This book is somewhat more advanced then Strang; the main emphasis is also on signal processing; contains information on complexity of wavelet-based algorithms and a detailed discussion of compression applications, quantization in particular.

Ingrid Daubechies. *Ten Lectures on Wavelets.* A classical book on wavelets, concentrates on mathematical aspects.

Yves Meyer. *Wavelets: Algorithms and Applications.* A good survey of the history and applications of wavelet techniques; Describes many interesting connections with other areas (turbulence theory, fractals, study of galactic clusters) that are seldom found in other books.

P.P. Vaydianathan. *Multirate Systems and Filter Banks.* A comprehensive reference on filter banks; paraunitary filter banks, closely related to orthogonal wavelets, are discussed in great detail. Contains a chapter on wavelets and their relation to filter banks.