1014-43-345   **Hrvoje Šikić*** (`hsikic@math.hr`), Department of Mathematics, University of Zagreb, Bijenicka
30, 10 000 Zagreb, Croatia, **Darrin M. Speegle** (`speegled@SLU.EDU`), Department of
Mathematics, St.Louis University, St.Louis, MO, and **Guido L. Weiss** (`guido@math.wustl.edu`),
Department of Mathematics, Washington University, St.Louis, MO. *The structure of the set of
Parseval frame wavelets.*

We consider the set of all singly generated one-dimensional Parseval frame wavelets (PFW-s for short); that is, normalized
(frame bounds one) tight frames generated by dilations and translations from a single function. Although this is the
simplest case among the various reproducing function systems recently studied by many authors, even in this case more
than a dozen potentially interesting subclasses have been identified. However, in many cases there were no known examples
of PFW-s belonging to these classes, and the underlying structure was often unkown. We fill this gap to a large extent,
by providing complete characterizations of various subclasses, and by constructing numerous examples of corresponding
PFW-s (some of them being highly non-trivial). Special emphasis is given to the class of MRA PFW-s and its relationship
to the class of semiorthogonal PFW-s. (Received September 12, 2005)