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Kniazev et al.

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(54) **METHOD AND SYSTEM FOR RECONSTRUCTING SAMPLED SIGNALS**

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CPC ***A61B 5/72*** (2013.01); ***A61B 5/0035*** (2013.01); ***A61B 5/7257*** (2013.01);
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CPC ... A61B 5/0035; A61B 5/7257; A61B 5/0073; A61B 5/7235; A61B 5/72; G01R 33/5611; G01R 33/5608; G06T 11/003; G06T 11/006; G06T 11/005; G06T 2207/20064; G06T 2207/10081; G06T 2207/20048; G06T 2207/20072; G06T 2207/20076;G06T 2211/421; G06T 7/206; G06T 9/00; G10L 19/008; G10L 19/03; G10L 19/24; G03H 2001/0883; G03H 2240/62; G06K 9/0057; G06K 9/527; G06K 9/6232; G06K 9/6262; G06K 9/78; G01N 23/046; G01N 29/0654; G01N 29/46; H04N 19/00; H04N 19/122; H04N 19/156; H04N 19/172; H04N 19/395; H04N 19/61; H04N 19/63; H04N 19/91; H04N 5/142
See application file for complete search history.

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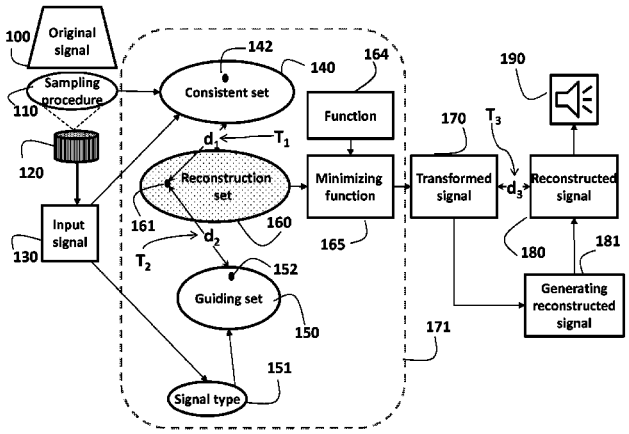
(57) **ABSTRACT**

A method reconstructs a signal by sampling the signal using a sampling procedure to obtain an input signal. A consistent set is determined from the input signal including the first elements such that applying the sampling procedure to the first elements results in the input signal. According to the type of the signal, a guiding set is determined including second elements disjoint from the first elements. A reconstruction set including third elements is generated so that the third elements minimize a sum of a first similarity measure
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