CLAIMS

1. A method for encoding an upmix matrix in an audio encoding system, each row of the upmix matrix comprising M elements allowing reconstruction of a time/frequency tile of an audio object from a downmix signal comprising M channels, the method comprising:

for each row in the upmix matrix:

selecting a subset of elements from the M elements of the row in the upmix matrix;

representing each element in the selected subset of elements by a value and a position in the upmix matrix; and

encoding the value and the position in the upmix matrix of each element in the selected subset of elements to form one or more vectors of parameters,

wherein each parameter of the one or more vectors of parameters corresponds to a non-periodic quantity, wherein each vector of the one or more vectors of parameters has a first element and at least one second element, and wherein each vector of the one or more vectors of parameters are encoded according to a method comprising:

representing each parameter in the vector by an index value which may take N values; associating each of the at least one second element with a symbol, the symbol being calculated by:

calculating a difference between the index value of the second element and the index value of its preceding element in the vector; and

applying modulo N to the difference;

encoding each of the at least one second element by entropy coding of the symbol associated with the at least one second element based on a probability table comprising probabilities of the symbols;

associating the first element in the vector with a symbol, the symbol being calculated by: shifting the index value representing the first element in the vector by subtracting an off-set value from the index value; and

applying modulo N to the shifted index value; and

encoding the first element by entropy coding of the symbol associated with the first element using the same probability table that is used to encode the at least one second element.

2. A non-transitory computer-readable storage medium comprising computer code instructions adapted to carry out the method of claim 1 when executed on a device having processing capability.

3. An encoder for encoding an upmix matrix in an audio encoding system, each row of the upmix matrix comprising M elements allowing reconstruction of a time/frequency tile of an audio object from a downmix signal comprising M channels, the encoder comprising:
a receiving component adapted to receive each row in the upmix matrix;
a selection component adapted to select a subset of elements from the M elements of the row in the upmix matrix; and
an encoding component adapted to represent each element in the selected subset of elements by a value and a position in the upmix matrix, the encoding component further adapted to encode the value and the position in the upmix matrix of each element in the selected subset of elements to form one or more vectors of parameters,
wherein each parameter of the one or more vectors of parameters corresponds to a non-periodic quantity, wherein each vector of the one or more vectors of parameters has a first element and at least one second element, and wherein the encoding component is adapted to encode each vector of the one or more vectors of parameters by:
representing each parameter in the vector by an index value which may take N values;
associating each of the at least one second element with a symbol, the symbol being calculated by:
calculating a difference between the index value of the second element and the index value of its preceding element in the vector; and
applying modulo N to the difference;
encoding each of the at least one second element by entropy coding of the symbol associated with the at least one second element based on a probability table comprising probabilities of the symbols;
associating the first element in the vector with a symbol, the symbol being calculated by:
shifting the index value representing the first element in the vector by subtracting an off-set value from the index value; and
applying modulo N to the shifted index value; and

encoding the first element by entropy coding of the symbol associated with the first element using the same probability table that is used to encode the at least one second element.