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(54) **GENERATING SPARSE SAMPLE HISTOGRAMS IN IMAGE PROCESSING**

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(57) **ABSTRACT**

Apparatus for binning an input value into an array of bins, each bin representing a range of input values and the bins collectively representing a histogram of input values, the apparatus comprising: an input for receiving the input value; a memory for storing the array; and a binning controller configured to: derive a plurality of bin values from the input value according to a binning distribution located about the input value, the binning distribution spanning a range of input values and each bin value having a respective input value dependent on the position of the bin value in the binning distribution; and allocate the plurality of bin values to a plurality of bins in the array, each bin value being allocated to a bin selected according to the respective input value of the bin value.