

Title (en)  
SPARSE IMAGE PROCESSING

Title (de)  
VERARBEITUNG VON VERSTREUTEN BILDERN

Title (fr)  
TRAITEMENT D'IMAGE ÉPARSE

Publication  
**EP 4360001 A1 20240501 (EN)**

Application  
**EP 22741938 A 20220621**

Priority  
• US 202163213249 P 20210622  
• US 202217833402 A 20220606  
• US 2022034259 W 20220621

Abstract (en)  
[origin: WO2022271639A1] In one example, an apparatus comprises: a memory to store input data and weights, the input data comprising groups of data elements, each group being associated with a channel of channels, the weights comprising weight tensors, each weight tensor being associated with a channel of the channels; a data sparsity map generation circuit configured to generate, based on the input data, a channel sparsity map and a spatial sparsity map, the channel sparsity map indicating channels associated with first weights tensors to be selected, the spatial sparsity map indicating spatial locations of first data elements; a gating circuit configured to: fetch, based on the channel sparsity map and the sparsity map, the first weights tensors and the first data elements from the memory; and a processing circuit configured to perform neural network computations on the first data elements and the first weights tensors to generate a processing result.

IPC 8 full level  
**G06N 3/04** (2023.01); **G06N 3/063** (2023.01); **G06N 3/08** (2023.01)

CPC (source: EP)  
**G06N 3/045** (2023.01); **G06N 3/063** (2013.01); **H04N 25/00** (2023.01); **G06N 3/048** (2023.01); **G06N 3/082** (2013.01); **G06N 3/084** (2013.01)

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AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

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KH MA MD TN

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**WO 2022271639 A1 20221229**; EP 4360001 A1 20240501; TW 202321991 A 20230601

DOCDB simple family (application)  
**US 2022034259 W 20220621**; EP 22741938 A 20220621; TW 111122741 A 20220617