

CPC COOPERATIVE PATENT CLASSIFICATION

G PHYSICS (NOTES omitted)

INSTRUMENTS

G06 COMPUTING; CALCULATING OR COUNTING (NOTES omitted)

G06T IMAGE DATA PROCESSING OR GENERATION, IN GENERAL

WARNINGS

- The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:
[G06T 1/40](#) covered by [G06T 1/20](#)
- In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00 General purpose image data processing

- 1/0007 . {Image acquisition}
- 1/0014 . {Image feed-back for automatic industrial control, e.g. robot with camera ([robots B25J 19/023](#))}
- 1/0021 . {Image watermarking}
- 1/0028 . . {Adaptive watermarking, e.g. Human Visual System [HVS]-based watermarking}
- 1/0035 . . . {Output size adaptive watermarking}
- 1/0042 . . {Fragile watermarking, e.g. so as to detect tampering}
- 1/005 . . {Robust watermarking, e.g. average attack or collusion attack resistant}
- 1/0057 . . . {Compression invariant watermarking}
- 1/0064 . . . {Geometric transform invariant watermarking, e.g. affine transform invariant}
- 1/0071 . . . {using multiple or alternating watermarks}
- 1/0078 . . . {using multiple thresholds}
- 1/0085 . . {Time domain based watermarking, e.g. watermarks spread over several images}
- 1/0092 . . {Payload characteristic determination in a watermarking scheme, e.g. number of bits to be embedded}
- 1/20 . Processor architectures; Processor configuration, e.g. pipelining
- 1/60 . Memory management

3/00 Geometric image transformations in the plane of the image

- 3/02 . Affine transformations ([for image registration G06T 3/147](#); [for image mosaicing G06T 3/4038](#))
- 3/04 . Context-preserving transformations, e.g. by using an importance map ([panospheric to cylindrical image transformations G06T 3/12](#))
- 3/047 . . Fisheye or wide-angle transformations
- 3/053 . . Detail-in-context presentations ([fisheye or wide-angle transformations G06T 3/047](#))
- 3/06 . Topological mapping of higher dimensional structures onto lower dimensional surfaces
- 3/067 . . Reshaping or unfolding 3D tree structures onto 2D planes
- 3/073 . . Transforming surfaces of revolution to planar images, e.g. cylindrical surfaces to planar images

- 3/08 . Projecting images onto non-planar surfaces, e.g. geodetic screens
- 3/10 . Selection of transformation methods according to the characteristics of the input images
- 3/12 . Panospheric to cylindrical image transformations
- 3/14 . Transformations for image registration, e.g. adjusting or mapping for alignment of images
- 3/147 . . using affine transformations
- 3/153 . . using elastic snapping
- 3/16 . Spatio-temporal transformations, e.g. video cubism
- 3/18 . Image warping, e.g. rearranging pixels individually
- 3/20 . Linear translation of whole images or parts thereof, e.g. panning
- 3/40 . Scaling of whole images or parts thereof, e.g. expanding or contracting
- 3/4007 . . based on interpolation, e.g. bilinear interpolation ([image demosaicing G06T 3/4015](#); [edge-driven or edge-based scaling G06T 3/403](#))
- 3/4015 . . Image demosaicing, e.g. colour filter arrays [CFA] or Bayer patterns
- 3/4023 . . based on decimating pixels or lines of pixels; based on inserting pixels or lines of pixels
- 3/403 . . Edge-driven scaling; Edge-based scaling
- 3/4038 . . Image mosaicing, e.g. composing plane images from plane sub-images
- 3/4046 . . using neural networks
- 3/4053 . . based on super-resolution, i.e. the output image resolution being higher than the sensor resolution
- 3/4061 . . . by injecting details from different spectral ranges
- 3/4069 . . . by subpixel displacements
- 3/4076 . . . using the original low-resolution images to iteratively correct the high-resolution images
- 3/4084 . . in the transform domain, e.g. fast Fourier transform [FFT] domain scaling
- 3/4092 . . Image resolution transcoding, e.g. by using client-server architectures
- 3/60 . Rotation of whole images or parts thereof
- 3/602 . . by block rotation, e.g. by recursive reversal or rotation

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|-------------|--|-------|--|
| 3/604 | . . using coordinate rotation digital computer [CORDIC] devices | 7/149 | . . involving deformable models, e.g. active contour models |
| 3/606 | . . by memory addressing or mapping | 7/155 | . . involving morphological operators |
| 3/608 | . . by skew deformation, e.g. two-pass or three-pass rotation | 7/162 | . . involving graph-based methods |
| 5/00 | Image enhancement or restoration | 7/168 | . . involving transform domain methods |
| | WARNING | 7/174 | . . involving the use of two or more images |
| | Group G06T 5/00 is impacted by reclassification into group G06T 5/60 . | 7/181 | . . involving edge growing; involving edge linking |
| | Groups G06T 5/00 and G06T 5/60 should be considered in order to perform a complete search. | 7/187 | . . involving region growing; involving region merging; involving connected component labelling |
| 5/10 | . using non-spatial domain filtering | 7/194 | . . involving foreground-background segmentation |
| 5/20 | . using local operators | 7/20 | . Analysis of motion (motion estimation for coding, decoding, compressing or decompressing digital video signals H04N 19/43, H04N 19/51) |
| 5/30 | . . Erosion or dilatation, e.g. thinning | 7/207 | . . for motion estimation over a hierarchy of resolutions (multi-resolution motion estimation or hierarchical motion estimation for coding, decoding, compressing or decompressing digital video signals H04N 19/53) |
| 5/40 | . using histogram techniques | 7/215 | . . Motion-based segmentation |
| 5/50 | . using two or more images, e.g. averaging or subtraction | 7/223 | . . using block-matching |
| 5/60 | . using machine learning, e.g. neural networks | 7/231 | . . . using full search |
| | WARNING | 7/238 | . . . using non-full search, e.g. three-step search |
| | Group G06T 5/60 is incomplete pending reclassification of documents from group G06T 5/00 . | 7/246 | . . using feature-based methods, e.g. the tracking of corners or segments |
| | Groups G06T 5/00 and G06T 5/60 should be considered in order to perform a complete search. | 7/248 | . . . { involving reference images or patches } |
| 5/70 | . Denoising; Smoothing | 7/251 | . . . { involving models } |
| 5/73 | . Deblurring; Sharpening | 7/254 | . . involving subtraction of images |
| 5/75 | . . Unsharp masking | 7/262 | . . using transform domain methods, e.g. Fourier domain methods |
| 5/77 | . Retouching; Inpainting; Scratch removal | 7/269 | . . using gradient-based methods |
| 5/80 | . Geometric correction | 7/277 | . . involving stochastic approaches, e.g. using Kalman filters |
| 5/90 | . Dynamic range modification of images or parts thereof | 7/285 | . . using a sequence of stereo image pairs |
| 5/92 | . . based on global image properties | 7/292 | . . Multi-camera tracking |
| 5/94 | . . based on local image properties, e.g. for local contrast enhancement | 7/30 | . Determination of transform parameters for the alignment of images, i.e. image registration |
| 7/00 | Image analysis | 7/32 | . . using correlation-based methods |
| 7/0002 | . { Inspection of images, e.g. flaw detection } | 7/33 | . . using feature-based methods |
| 7/0004 | . . { Industrial image inspection } | 7/337 | . . . { involving reference images or patches } |
| 7/0006 | . . . { using a design-rule based approach } | 7/344 | . . . { involving models } |
| 7/0008 | . . . { checking presence/absence } | 7/35 | . . using statistical methods |
| 7/001 | . . . { using an image reference approach } | 7/37 | . . using transform domain methods |
| 7/0012 | . . { Biomedical image inspection } | 7/38 | . . Registration of image sequences |
| 7/0014 | . . . { using an image reference approach } | 7/40 | . Analysis of texture (depth or shape recovery from texture G06T 7/529) |
| 7/0016 | { involving temporal comparison } | 7/41 | . . based on statistical description of texture |
| 7/10 | . Segmentation; Edge detection (motion-based segmentation G06T 7/215) | 7/42 | . . . using transform domain methods |
| | NOTE | 7/44 | . . . using image operators, e.g. filters, edge density metrics or local histograms |
| | When classifying in groups G06T 7/11 - G06T 7/13 , classification is also made in relevant groups of G06T 7/136 - G06T 7/194 . | 7/45 | . . . using co-occurrence matrix computation |
| 7/11 | . . Region-based segmentation | 7/46 | . . . using random fields |
| 7/12 | . . Edge-based segmentation | 7/48 | . . . using fractals |
| 7/13 | . . Edge detection | 7/49 | . . based on structural texture description, e.g. using primitives or placement rules |
| 7/136 | . . involving thresholding | 7/50 | . Depth or shape recovery |
| 7/143 | . . involving probabilistic approaches, e.g. Markov random field [MRF] modelling | 7/507 | . . from shading (G06T 7/586 takes precedence) |
| | | 7/514 | . . from specularities |
| | | 7/521 | . . from laser ranging, e.g. using interferometry; from the projection of structured light |
| | | 7/529 | . . from texture |
| | | 7/536 | . . from perspective effects, e.g. by using vanishing points |

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| 7/543 | . . from line drawings | 11/60 | . Editing figures and text; Combining figures or text |
| 7/55 | . . from multiple images | 11/80 | . Creating or modifying a manually drawn or painted image using a manual input device, e.g. mouse, light pen, direction keys on keyboard |
| 7/557 | . . . from light fields, e.g. from plenoptic cameras | | |
| 7/564 | . . . from contours | | |
| 7/571 | . . . from focus | 13/00 | Animation |
| 7/579 | . . . from motion | 13/20 | . 3D [Three Dimensional] animation |
| 7/586 | . . . from multiple light sources, e.g. photometric stereo | 13/205 | . . {driven by audio data} |
| | | 13/40 | . . of characters, e.g. humans, animals or virtual beings |
| 7/593 | . . . from stereo images | | |
| 7/596 | {from three or more stereo images} | 13/60 | . . of natural phenomena, e.g. rain, snow, water or plants |
| 7/60 | . Analysis of geometric attributes | 13/80 | . 2D [Two Dimensional] animation, e.g. using sprites |
| 7/62 | . . of area, perimeter, diameter or volume | | |
| 7/64 | . . of convexity or concavity | 15/00 | 3D [Three Dimensional] image rendering |
| 7/66 | . . of image moments or centre of gravity | 15/005 | . {General purpose rendering architectures} |
| 7/68 | . . of symmetry | 15/02 | . Non-photorealistic rendering |
| 7/70 | . Determining position or orientation of objects or cameras (camera calibration G06T 7/80) | 15/04 | . Texture mapping |
| 7/73 | . . using feature-based methods | 15/06 | . Ray-tracing |
| 7/74 | . . . {involving reference images or patches} | 15/08 | . Volume rendering |
| 7/75 | . . . {involving models} | 15/10 | . Geometric effects |
| 7/77 | . . using statistical methods | 15/20 | . . Perspective computation |
| 7/80 | . Analysis of captured images to determine intrinsic or extrinsic camera parameters, i.e. camera calibration | 15/205 | . . . {Image-based rendering} |
| | | 15/30 | . . Clipping |
| 7/85 | . . {Stereo camera calibration} | 15/40 | . . Hidden part removal |
| 7/90 | . Determination of colour characteristics | 15/405 | . . . {using Z-buffer} |
| 7/97 | . {Determining parameters from multiple pictures (depth or shape recovery from multiple images G06T 7/55 ; stereo camera calibration G06T 7/85)} | 15/50 | . Lighting effects |
| | | 15/503 | . . {Blending, e.g. for anti-aliasing} |
| 9/00 | Image coding (bandwidth or redundancy reduction for static pictures H04N 1/41; coding or decoding of static colour picture signals H04N 1/64; methods or arrangements for coding, decoding, compressing or decompressing digital video signals H04N 19/00) | 15/506 | . . {Illumination models} |
| | | 15/55 | . . Radiosity |
| 9/001 | . {Model-based coding, e.g. wire frame} | 15/60 | . . Shadow generation |
| 9/002 | . {using neural networks} | 15/80 | . . Shading |
| 9/004 | . {Predictors, e.g. intraframe, interframe coding} | 15/83 | . . . Phong shading |
| 9/005 | . {Statistical coding, e.g. Huffman, run length coding} | 15/87 | . . . Gouraud shading |
| 9/007 | . {Transform coding, e.g. discrete cosine transform} | 17/00 | Three dimensional [3D] modelling, e.g. data description of 3D objects |
| 9/008 | . {Vector quantisation} | 17/005 | . {Tree description, e.g. octree, quadtree} |
| 9/20 | . Contour coding, e.g. using detection of edges | 17/05 | . Geographic models |
| 9/40 | . Tree coding, e.g. quadtree, octree | 17/10 | . Constructive solid geometry [CSG] using solid primitives, e.g. cylinders, cubes |
| 11/00 | 2D [Two Dimensional] image generation | 17/20 | . Finite element generation, e.g. wire-frame surface description, {tessellation} |
| 11/001 | . {Texturing; Colouring; Generation of texture or colour (inpainting G06T 5/77)} | 17/205 | . . {Re-meshing} |
| 11/003 | . {Reconstruction from projections, e.g. tomography} | 17/30 | . Polynomial surface description |
| 11/005 | . . {Specific pre-processing for tomographic reconstruction, e.g. calibration, source positioning, rebinning, scatter correction, retrospective gating} | 19/00 | Manipulating 3D models or images for computer graphics |
| 11/006 | . . {Inverse problem, transformation from projection-space into object-space, e.g. transform methods, back-projection, algebraic methods} | 19/003 | . {Navigation within 3D models or images} |
| 11/008 | . . {Specific post-processing after tomographic reconstruction, e.g. voxelisation, metal artifact correction} | 19/006 | . {Mixed reality (object pose determination, tracking or camera calibration for mixed reality G06T 7/00)} |
| 11/20 | . Drawing from basic elements, e.g. lines or circles | 19/20 | . Editing of 3D images, e.g. changing shapes or colours, aligning objects or positioning parts |
| 11/203 | . . {Drawing of straight lines or curves} | 2200/00 | Indexing scheme for image data processing or generation, in general |
| 11/206 | . . {Drawing of charts or graphs} | 2200/04 | . involving 3D image data |
| 11/40 | . Filling a planar surface by adding surface attributes, e.g. colour or texture | 2200/08 | . involving all processing steps from image acquisition to 3D model generation |
| | | 2200/12 | . involving antialiasing |
| | | 2200/16 | . involving adaptation to the client's capabilities |
| | | 2200/21 | . involving computational photography |
| | | 2200/24 | . involving graphical user interfaces [GUIs] |
| | | 2200/28 | . involving image processing hardware |

- 2200/32 . . involving image mosaicing
- 2200/36 . . Review paper; Tutorial; Survey
- 2201/00 General purpose image data processing**
- 2201/005 . . Image watermarking
- 2201/0051 . . Embedding of the watermark in the spatial domain
- 2201/0052 . . Embedding of the watermark in the frequency domain
- 2201/0053 . . Embedding of the watermark in the coding stream, possibly without decoding; Embedding of the watermark in the compressed domain
- 2201/0061 . . Embedding of the watermark in each block of the image, e.g. segmented watermarking
- 2201/0062 . . Embedding of the watermark in text images, e.g. watermarking text documents using letter skew, letter distance or row distance
- 2201/0063 . . in relation to collusion attacks, e.g. collusion attack resistant
- 2201/0064 . . for copy protection or copy management, e.g. CGMS, copy only once, one-time copy
- 2201/0065 . . Extraction of an embedded watermark; Reliable detection
- 2201/0081 . . whereby both original and watermarked images are required at decoder, e.g. destination-based, non-blind, non-oblivious
- 2201/0083 . . whereby only watermarked image required at decoder, e.g. source-based, blind, oblivious
- 2201/0201 . . whereby only tamper or origin are detected and no embedding takes place
- 2201/0202 . . whereby the quality of watermarked images is measured; Measuring quality or performance of watermarking methods; Balancing between quality and robustness
- 2201/0203 . . whereby the image with embedded watermark is reverted to the original condition before embedding, e.g. lossless, distortion-free or invertible watermarking
- 2201/0601 . . whereby calibration information is embedded in the watermark, e.g. a grid, a scale, a list of transformations
- 2207/00 Indexing scheme for image analysis or image enhancement**
- 2207/10 . . Image acquisition modality
- 2207/10004 . . Still image; Photographic image
- 2207/10008 . . . from scanner, fax or copier
- 2207/10012 . . . Stereo images
- 2207/10016 . . Video; Image sequence
- 2207/10021 . . . Stereoscopic video; Stereoscopic image sequence
- 2207/10024 . . Color image
- 2207/10028 . . Range image; Depth image; 3D point clouds
- 2207/10032 . . Satellite or aerial image; Remote sensing
- 2207/10036 . . . Multispectral image; Hyperspectral image
- 2207/10041 . . . Panchromatic image
- 2207/10044 . . . Radar image
- 2207/10048 . . Infrared image
- 2207/10052 . . Images from lightfield camera
- 2207/10056 . . Microscopic image
- 2207/10061 . . . from scanning electron microscope
- 2207/10064 . . Fluorescence image
- 2207/10068 . . Endoscopic image
- 2207/10072 . . Tomographic images
- 2207/10076 . . . 4D tomography; Time-sequential 3D tomography
- 2207/10081 . . . Computed x-ray tomography [CT]
- 2207/10084 . . . Hybrid tomography; Concurrent acquisition with multiple different tomographic modalities
- 2207/10088 . . . Magnetic resonance imaging [MRI]
- 2207/10092 Diffusion tensor magnetic resonance imaging [DTI]
- 2207/10096 Dynamic contrast-enhanced magnetic resonance imaging [DCE-MRI]
- 2207/10101 . . . Optical tomography; Optical coherence tomography [OCT]
- 2207/10104 . . . Positron emission tomography [PET]
- 2207/10108 . . . Single photon emission computed tomography [SPECT]
- 2207/10112 . . . Digital tomosynthesis [DTS]
- 2207/10116 . . X-ray image
- 2207/10121 . . . Fluoroscopy
- 2207/10124 . . . Digitally reconstructed radiograph [DRR]
- 2207/10128 . . . Scintigraphy
- 2207/10132 . . Ultrasound image
- 2207/10136 . . . 3D ultrasound image
- 2207/10141 . . Special mode during image acquisition
- 2207/10144 . . . Varying exposure
- 2207/10148 . . . Varying focus
- 2207/10152 . . . Varying illumination
- 2207/20 . . Special algorithmic details
- 2207/20004 . . Adaptive image processing
- 2207/20008 . . . Globally adaptive
- 2207/20012 . . . Locally adaptive
- 2207/20016 . . Hierarchical, coarse-to-fine, multiscale or multiresolution image processing; Pyramid transform
- 2207/20021 . . Dividing image into blocks, subimages or windows
- 2207/20024 . . Filtering details
- 2207/20028 . . . Bilateral filtering
- 2207/20032 . . . Median filtering
- 2207/20036 . . Morphological image processing
- 2207/20041 . . . Distance transform
- 2207/20044 . . . Skeletonization; Medial axis transform
- 2207/20048 . . Transform domain processing
- 2207/20052 . . . Discrete cosine transform [DCT]
- 2207/20056 . . . Discrete and fast Fourier transform, [DFT, FFT]
- 2207/20061 . . . Hough transform
- 2207/20064 . . . Wavelet transform [DWT]
- 2207/20068 . . Projection on vertical or horizontal image axis
- 2207/20072 . . Graph-based image processing
- 2207/20076 . . Probabilistic image processing
- 2207/20081 . . Training; Learning
- 2207/20084 . . Artificial neural networks [ANN]
- 2207/20088 . . Trinocular vision calculations; trifocal tensor
- 2207/20092 . . Interactive image processing based on input by user
- 2207/20096 . . . Interactive definition of curve of interest
- 2207/20101 . . . Interactive definition of point of interest, landmark or seed
- 2207/20104 . . . Interactive definition of region of interest [ROI]
- 2207/20108 . . . Interactive selection of 2D slice in a 3D data set
- 2207/20112 . . Image segmentation details

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| 2207/20116 | . . . Active contour; Active surface; Snakes | 2207/30152 | . . . Solder |
| 2207/20121 | . . . Active appearance model [AAM] | 2207/30156 | . . . Vehicle coating |
| 2207/20124 | . . . Active shape model [ASM] | 2207/30161 | . . . Wood; Lumber |
| 2207/20128 | . . . Atlas-based segmentation | 2207/30164 | . . . Workpiece; Machine component |
| 2207/20132 | . . . Image cropping | 2207/30168 | . . . Image quality inspection |
| 2207/20152 | . . . Watershed segmentation | 2207/30172 | . . . Centreline of tubular or elongated structure |
| 2207/20156 | . . . Automatic seed setting | 2207/30176 | . . . Document |
| 2207/20161 | . . . Level set | 2207/30181 | . . . Earth observation |
| 2207/20164 | . . . Salient point detection; Corner detection | 2207/30184 | . . . Infrastructure |
| 2207/20168 | . . . Radial search | 2207/30188 | . . . Vegetation; Agriculture |
| 2207/20172 | . . . Image enhancement details | 2207/30192 | . . . Weather; Meteorology |
| 2207/20182 | . . . Noise reduction or smoothing in the temporal domain; Spatio-temporal filtering | 2207/30196 | . . . Human being; Person |
| 2207/20192 | . . . Edge enhancement; Edge preservation | 2207/30201 | . . . Face |
| 2207/20201 | . . . Motion blur correction | 2207/30204 | . . . Marker |
| 2207/20204 | . . . Removing film grain; Adding simulated film grain | 2207/30208 | . . . Marker matrix |
| 2207/20208 | . . . High dynamic range [HDR] image processing | 2207/30212 | . . . Military |
| 2207/20212 | . . . Image combination | 2207/30216 | . . . Redeye defect |
| 2207/20216 | . . . Image averaging | 2207/30221 | . . . Sports video; Sports image |
| 2207/20221 | . . . Image fusion; Image merging | 2207/30224 | . . . Ball; Puck |
| 2207/20224 | . . . Image subtraction | 2207/30228 | . . . Playing field |
| 2207/20228 | . . . Disparity calculation for image-based rendering | 2207/30232 | . . . Surveillance |
| 2207/30 | . . . Subject of image; Context of image processing | 2207/30236 | . . . Traffic on road, railway or crossing |
| 2207/30004 | . . . Biomedical image processing | 2207/30241 | . . . Trajectory |
| 2207/30008 | . . . Bone | 2207/30242 | . . . Counting objects in image |
| 2207/30012 | Spine; Backbone | 2207/30244 | . . . Camera pose |
| 2207/30016 | . . . Brain | 2207/30248 | . . . Vehicle exterior or interior |
| 2207/30021 | . . . Catheter; Guide wire | 2207/30252 | . . . Vehicle exterior; Vicinity of vehicle |
| 2207/30024 | . . . Cell structures <i>in vitro</i> ; Tissue sections <i>in vitro</i> | 2207/30256 | Lane; Road marking |
| 2207/30028 | . . . Colon; Small intestine | 2207/30261 | Obstacle |
| 2207/30032 | Colon polyp | 2207/30264 | Parking |
| 2207/30036 | . . . Dental; Teeth | 2207/30268 | Vehicle interior |
| 2207/30041 | . . . Eye; Retina; Ophthalmic | 2210/00 | Indexing scheme for image generation or computer graphics |
| 2207/30044 | . . . Fetus; Embryo | 2210/04 | . . . Architectural design, interior design |
| 2207/30048 | . . . Heart; Cardiac | 2210/08 | . . . Bandwidth reduction |
| 2207/30052 | . . . Implant; Prosthesis | 2210/12 | . . . Bounding box |
| 2207/30056 | . . . Liver; Hepatic | 2210/16 | . . . Cloth |
| 2207/30061 | . . . Lung | 2210/21 | . . . Collision detection, intersection |
| 2207/30064 | Lung nodule | 2210/22 | . . . Cropping |
| 2207/30068 | . . . Mammography; Breast | 2210/24 | . . . Fluid dynamics |
| 2207/30072 | . . . Microarray; Biochip, DNA array; Well plate | 2210/28 | . . . Force feedback |
| 2207/30076 | . . . Plethysmography | 2210/32 | . . . Image data format |
| 2207/30081 | . . . Prostate | 2210/36 | . . . Level of detail |
| 2207/30084 | . . . Kidney; Renal | 2210/41 | . . . Medical |
| 2207/30088 | . . . Skin; Dermal | 2210/44 | . . . Morphing |
| 2207/30092 | . . . Stomach; Gastric | 2210/52 | . . . Parallel processing |
| 2207/30096 | . . . Tumor; Lesion | 2210/56 | . . . Particle system, point based geometry or rendering |
| 2207/30101 | . . . Blood vessel; Artery; Vein; Vascular | 2210/61 | . . . Scene description |
| 2207/30104 | Vascular flow; Blood flow; Perfusion | 2210/62 | . . . Semi-transparency |
| 2207/30108 | . . . Industrial image inspection | 2210/64 | . . . Weathering |
| 2207/30112 | . . . Baggage; Luggage; Suitcase | 2211/00 | Image generation |
| 2207/30116 | . . . Casting | | |
| 2207/30121 | . . . CRT, LCD or plasma display | | |
| 2207/30124 | . . . Fabrics; Textile; Paper | | |
| 2207/30128 | . . . Food products | | |
| 2207/30132 | . . . Masonry; Concrete | | |
| 2207/30136 | . . . Metal | | |
| 2207/30141 | . . . Printed circuit board [PCB] | | |
| 2207/30144 | . . . Printing quality | | |
| 2207/30148 | . . . Semiconductor; IC; Wafer | | |

- 2211/40 . . Computed tomography

WARNING

Group [G06T 2211/40](#) is impacted by reclassification into groups [G06T 2211/441](#), [G06T 2211/444](#), [G06T 2211/448](#), [G06T 2211/452](#), [G06T 2211/456](#), [G06T 2211/461](#) and [G06T 2211/464](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 2211/404 . . . Angiography
- 2211/408 . . . Dual energy
- 2211/412 . . . Dynamic
- 2211/416 . . . Exact reconstruction
- 2211/421 . . . Filtered back projection [FBP]
- 2211/424 . . . Iterative
- 2211/428 . . . Real-time
- 2211/432 . . . Truncation
- 2211/436 . . . Limited angle
- 2211/441 . . . AI-based methods, deep learning or artificial neural networks

WARNING

Group [G06T 2211/441](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).

Groups [G06T 2211/40](#) and [G06T 2211/441](#) should be considered in order to perform a complete search.

- 2211/444 . . . Low dose acquisition or reduction of radiation dose

WARNING

Group [G06T 2211/444](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).

Groups [G06T 2211/40](#) and [G06T 2211/444](#) should be considered in order to perform a complete search.

- 2211/448 . . . involving metal artefacts, streaking artefacts, beam hardening or photon starvation

WARNING

Group [G06T 2211/448](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).

Groups [G06T 2211/40](#) and [G06T 2211/448](#) should be considered in order to perform a complete search.

- 2211/452 . . . involving suppression of scattered radiation or scatter correction

WARNING

Group [G06T 2211/452](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).

Groups [G06T 2211/40](#) and [G06T 2211/452](#) should be considered in order to perform a complete search.

- 2211/456 . . . Optical coherence tomography [OCT]

WARNING

Group [G06T 2211/456](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).

Groups [G06T 2211/40](#) and [G06T 2211/456](#) should be considered in order to perform a complete search.

- 2211/461 . . . Phase contrast imaging or dark field imaging

WARNING

Group [G06T 2211/461](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).

Groups [G06T 2211/40](#) and [G06T 2211/461](#) should be considered in order to perform a complete search.

- 2211/464 . . . Dual or multimodal imaging, i.e. combining two or more imaging modalities

WARNING

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Groups [G06T 2211/40](#) and [G06T 2211/464](#) should be considered in order to perform a complete search.

2213/00 Indexing scheme for animation

- 2213/04 . . Animation description language
- 2213/08 . . Animation software package
- 2213/12 . . Rule based animation

2215/00 Indexing scheme for image rendering

- 2215/06 . . Curved planar reformation of 3D line structures
- 2215/08 . . Gnomonic or central projection
- 2215/12 . . Shadow map, environment map
- 2215/16 . . Using real world measurements to influence rendering

2219/00 Indexing scheme for manipulating 3D models or images for computer graphics

- 2219/004 . . Annotating, labelling
- 2219/008 . . Cut plane or projection plane definition
- 2219/012 . . Dimensioning, tolerancing
- 2219/016 . . Exploded view
- 2219/021 . . Flattening
- 2219/024 . . Multi-user, collaborative environment
- 2219/028 . . Multiple view windows (top-side-front-sagittal-orthogonal)
- 2219/20 . . Indexing scheme for editing of 3D models
- 2219/2004 . . . Aligning objects, relative positioning of parts
- 2219/2008 . . . Assembling, disassembling
- 2219/2012 . . . Colour editing, changing, or manipulating; Use of colour codes
- 2219/2016 . . . Rotation, translation, scaling
- 2219/2021 . . . Shape modification
- 2219/2024 . . . Style variation