

# CPC COOPERATIVE PATENT CLASSIFICATION

## G PHYSICS (NOTES omitted)

### INSTRUMENTS

## G01 MEASURING; TESTING (NOTES omitted)

## G01V GEOPHYSICS; GRAVITATIONAL MEASUREMENTS; DETECTING MASSES OR OBJECTS; TAGS (means for indicating the location of accidentally buried, e.g. snow-buried, persons [A63B 29/02](#))

### NOTES

1. This subclass covers radar, sonar, lidar or analogous systems specifically designed for geophysical use. Radar, sonar, lidar or analogous systems, or details of such systems, if of a general interest, are also classified in subclass [G01S](#).
2. In this subclass, the following term is used with the meaning indicated:
  - "tags" means arrangements cooperating with a detecting field, e.g. near field, and designed to produce a specific detectable effect; "tags" also means active markers capable of generating a detectable field.
3. In this subclass, the geophysical methods apply both to the earth and to other celestial objects, e.g. planets.
4. Attention is drawn to the Notes following the title of class [G01](#).

### WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:  
[G01V 3/11](#) covered by [G01V 3/101](#), [G01V 3/104](#)
2. 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.

|             |  |       |   |
|-------------|--|-------|---|
| <b>1/00</b> | <b>Seismology; Seismic or acoustic prospecting or detecting</b>  | 1/104 | . . . using explosive charges ( <a href="#">G01V 1/157</a> takes precedence)  |
|             | <b><u>NOTE</u></b>   | 1/108 | . . . by deforming or displacing surfaces of enclosures   |
|             | Groups <a href="#">G01V 1/44</a> - <a href="#">G01V 1/52</a> take precedence over groups <a href="#">G01V 1/001</a> - <a href="#">G01V 1/393</a> <a href="#">G01V 1/42</a>         | 1/112 | . . . . for use on the surface of the earth   |
| 1/001       | . {Acoustic presence detection}  | 1/116 | . . . where pressurised combustion gases escape from the generator in a pulsating manner, e.g. for generating bursts                      |
| 1/003       | . {Seismic data acquisition in general, e.g. survey design ( <a href="#">G01V 1/3808</a> , <a href="#">G01V 1/42</a> take precedence)}   | 1/13  | . . . Arrangements or disposition of charges to produce a desired pattern in space or time  |
| 1/005       | . . {with exploration systems emitting special signals, e.g. frequency swept signals, pulse sequences or slip sweep arrangements}  | 1/133 | . . using fluidic driving means, e.g. highly pressurised fluids; {using implosion} ( <a href="#">G01V 1/104</a> takes precedence)         |
| 1/006       | . . {generating single signals by using more than one generator, e.g. beam steering or focusing arrays ( <a href="#">G01V 1/13</a> , <a href="#">G01V 1/3861</a> take precedence)} | 1/135 | . . . by deforming or displacing surfaces of enclosures {, e.g. by hydraulically driven vibroseis™}                                       |
| 1/01        | . Measuring or predicting earthquakes  | 1/137 | . . . which fluid escapes from the generator in a pulsating manner, e.g. for generating bursts {, airguns}                                |
| 1/02        | . Generating seismic energy {( <a href="#">G01V 1/003</a> takes precedence)}   | 1/143 | . . using mechanical driving means {, e.g. motor driven shaft} ( <a href="#">G01V 1/104</a> , <a href="#">G01V 1/133</a> take precedence) |
| 1/04        | . . Details  | 1/145 | . . . by deforming or displacing surfaces {, e.g. by mechanically driven vibroseis™}  |
| 1/047       | . . . Arrangements for coupling the generator to the ground  | 1/147 | . . . using impact of dropping masses   |
| 1/0475      | . . . . {for controlling "Ground Force"}   | 1/153 | . . . using rotary unbalanced masses  |
| 1/053       | . . . . for generating transverse waves  | 1/155 | . . . using reciprocating masses  |
| 1/06        | . . . Ignition devices ( <a href="#">G01V 1/393</a> takes precedence)  | 1/157 | . . using spark discharges; using exploding wires   |
| 1/08        | . . . . involving time-delay devices   |       |   |
| 1/09        | . . . Transporting arrangements, e.g. on vehicles ( <a href="#">G01V 1/38</a> takes precedence)  |       |   |

|          |   |        |  |
|----------|---|--------|--|
| 1/159    | . . {using piezoelectric or magnetostrictive driving means (generating mechanical vibrations by using piezoelectric or magnetostrictive effect in general, <a href="#">B06B 1/06</a> , <a href="#">B06B 1/08</a> )}                           | 1/303  | . . . {for determining velocity profiles or travel times}  |
| 1/16     | . Receiving elements for seismic signals;<br>Arrangements or adaptations of receiving elements  | 1/305  | . . . . {Travel times}   |
| 1/162    | . . {Details}   | 1/306  | . . . {for determining physical properties of the subsurface, e.g. impedance, porosity or attenuation profiles}  |
| 1/164    | . . . {Circuits therefore}  | 1/307  | . . . {for determining seismic attributes, e.g. amplitude, instantaneous phase or frequency, reflection strength or polarity}  |
| 1/166    | . . . {Arrangements for coupling receivers to the ground}   | 1/308  | . . . {Time lapse or 4D effects, e.g. production related effects to the formation (fluid flow <a href="#">per se E21B 47/00</a> )}   |
| 1/168    | . . {Deployment of receiver elements ( <a href="#">G01V 1/3843</a> takes precedence)}   | 1/32   | . . Transforming one recording into another {or one representation into another}   |
| 1/18     | . . Receiving elements, e.g. seismometer, geophone {or torque detectors, for localised single point measurements}   | 1/325  | . . . {Transforming one representation into another}   |
| 1/181    | . . . {Geophones}   | 1/34   | . . Displaying seismic recordings {or visualisation of seismic data or attributes}   |
| 1/182    | . . . . {with moving coil}  | 1/345  | . . . {Visualisation of seismic data or attributes, e.g. in 3D cubes}  |
| 1/183    | . . . . {with moving magnet}  | 1/36   | . . Effecting static or dynamic corrections on records, e.g. correcting spread; Correlating seismic signals; Eliminating effects of unwanted energy                                  |
| 1/184    | . . . . {Multi-component geophones}   | 1/362  | . . . {Effecting static or dynamic corrections; Stacking}  |
| 1/185    | . . . . {with adaptable orientation, e.g. gimbaled}   | 1/364  | . . . {Seismic filtering ( <a href="#">G01V 1/37</a> takes precedence)}  |
| 1/186    | . . . {Hydrophones}   | 1/366  | . . . . {by correlation of seismic signals}  |
| 1/187    | . . . . {Direction-sensitive hydrophones}   | 1/368  | . . . . {Inverse filtering}  |
| 1/188    | . . . . {with pressure compensating means}  | 1/37   | . . . specially adapted for seismic systems using continuous agitation of the ground {, e.g. using pulse compression of frequency swept signals for enhancement of received signals} |
| 1/189    | . . . {Combinations of different types of receiving elements}   | 1/375  | . . . . {Correlating received seismic signals with the emitted source signal}  |
| 1/20     | . . Arrangements of receiving elements, e.g. geophone pattern   | 1/38   | . specially adapted for water-covered areas ( <a href="#">G01V 1/28</a> takes precedence)  |
| 1/201    | . . . {Constructional details of seismic cables, e.g. streamers (integrated optoseismic systems <a href="#">G01V 1/226</a> ; line connectors in general <a href="#">H01R</a> , transducer mountings in general <a href="#">G10K 11/004</a> )} | 1/3808 | . . {Seismic data acquisition, e.g. survey design}   |
| 1/202    | . . . . {Connectors, e.g. for force, signal or power}   | 1/3817 | . . {Positioning of seismic devices}   |
| 2001/204 | . . . . {Reinforcements, e.g. by tensioning cables}   | 1/3826 | . . . {dynamic steering, e.g. by paravanes or birds}   |
| 2001/205 | . . . . {Internal damping}  | 1/3835 | . . . {measuring position, e.g. by GPS or acoustically}  |
| 2001/207 | . . . . {Buoyancy}  | 1/3843 | . . {Deployment of seismic devices, e.g. of streamers (equipment for marine deployment in general <a href="#">B63B</a> )}  |
| 1/208    | . . . . {having a continuous structure (detecting traffic <a href="#">G08G</a> , transducers in general <a href="#">G10K</a> )}   | 1/3852 | . . . {to the seabed}  |
| 1/22     | . Transmitting seismic signals to recording or processing apparatus   | 1/3861 | . . {control of source arrays, e.g. for far field control}   |
| 1/223    | . . {Radioseismic systems}  | 1/387  | . . Reducing secondary bubble pulse, i.e. reducing the detected signals resulting from the generation and release of gas bubbles after the primary explosion                         |
| 1/226    | . . {Optoseismic systems}   | 1/393  | . . Means for loading explosive underwater charges, e.g. combined with ignition devices  |
| 1/24     | . Recording seismic data  | 1/40   | . specially adapted for well-logging   |
| 1/242    | . . {Seismographs}  | 1/42   | . . using generators in one well and receivers elsewhere or <i>vice versa</i> ( <a href="#">G01V 1/52</a> takes precedence)  |
| 1/245    | . . {Amplitude control for seismic recording (control of amplification in general <a href="#">H03G</a> )}   | 1/44   | . . using generators and receivers in the same well ( <a href="#">G01V 1/52</a> takes precedence)  |
| 1/247    | . . {Digital recording of seismic data, e.g. in acquisition units or nodes}   | 1/46   | . . . Data acquisition   |
| 1/26     | . . Reference-signal-transmitting devices, e.g. indicating moment of firing of shot   | 1/48   | . . . Processing data  |
| 1/28     | . Processing seismic data, e.g. for interpretation or for event detection ( <a href="#">G01V 1/48</a> takes precedence)   | 1/50   | . . . . Analysing data   |
| 1/282    | . . {Application of seismic models, synthetic seismograms}  | 1/52   | . . Structural details   |
| 1/284    | . . {Application of the shear wave component and/or several components of the seismic signal}   |        |  |
| 1/286    | . . . {Mode conversion}   |        |  |
| 1/288    | . . {Event detection in seismic signals, e.g. microseismics ( <a href="#">G01V 1/36</a> takes precedence)}  |        |  |
| 1/30     | . . Analysis ( <a href="#">G01V 1/50</a> takes precedence)  |        |  |
| 1/301    | . . . {for determining seismic cross-sections or geostructures}   |        |  |
| 1/302    | . . . . {in 3D data cubes}  |        |  |

|             |   |             |   |
|-------------|---|-------------|---|
| 1/523       | . . . {Damping devices}   | 3/26        | . . operating with magnetic or electric fields produced or modified either by the surrounding earth formation or by the detecting device (with <a href="#">electromagnetic waves G01V 3/30</a> )                            |
| 2001/526    | . . . {Mounting of transducers}   | 3/265       | . . . {Operating with fields produced by spontaneous potentials, e.g. electrochemicals or produced by telluric currents}  |
| <b>3/00</b> | <b>Electric or magnetic prospecting or detecting; Measuring magnetic field characteristics of the earth, e.g. declination, deviation</b>  | 3/28        | . . . using induction coils   |
| 3/02        | . operating with propagation of electric current  | 3/30        | . . operating with electromagnetic waves  |
| 3/04        | . . using DC  | 3/32        | . . operating with electron or nuclear magnetic resonance   |
| 3/06        | . . using AC  | 3/34        | . . Transmitting data to recording or processing apparatus; Recording data  |
| 3/08        | . operating with magnetic or electric fields produced or modified by objects or geological structures or by detecting devices (with <a href="#">electromagnetic waves G01V 3/12</a> )   | 3/36        | . Recording data ( <a href="#">G01V 3/34 takes precedence</a> )   |
| 3/081       | . . {the magnetic field is produced by the objects or geological structures (characterised by the method of magnetic field measurement <a href="#">G01R 33/00</a> )}  | 3/38        | . Processing data, e.g. for analysis, for interpretation, for correction  |
| 3/082       | . . {operating with fields produced by spontaneous potentials, e.g. electrochemical or produced by telluric currents ( <a href="#">G01V 3/26 takes precedence</a> )}  | 3/40        | . specially adapted for measuring magnetic field characteristics of the earth   |
| 3/083       | . . {Controlled source electromagnetic [CSEM] surveying}  | <b>5/00</b> | <b>Prospecting or detecting by the use of ionising radiation, e.g. of natural or induced radioactivity</b>  |
| 2003/084    | . . . {Sources}   | 5/02        | . specially adapted for surface logging, e.g. from aircraft   |
| 2003/085    | . . . {Receivers}   | 5/025       | . . {specially adapted for use from aircraft}   |
| 2003/086    | . . . {Processing}  | 5/04        | . specially adapted for well-logging  |
| 3/087       | . . {the earth magnetic field being modified by the objects or geological structures}   | 5/045       | . . {Transmitting data to recording or processing apparatus; Recording data}  |
| 3/088       | . . {operating with electric fields ( <a href="#">G01V 3/082 takes precedence</a> )}  | 5/06        | . . for detecting naturally radioactive minerals  |
| 3/10        | . . using induction coils   | 5/08        | . . using primary nuclear radiation sources or X-rays {, e.g. for inducing radioactivity; investigating or analysing materials by the use of wave or particle radiation, e.g. X-rays, neutrons <a href="#">G01N 23/00</a> } |
| 3/101       | . . . {by measuring the impedance of the search coil; by measuring features of a resonant circuit comprising the search coil (measuring impedance or characteristics derived therefrom <a href="#">G01R 27/00</a> , e.g. quality factor <a href="#">G01R 27/26</a> )} | 5/085       | . . . {using another radioactive source}  |
| 3/102       | . . . . {by measuring amplitude}  | 5/10        | . . . using neutron sources {(neutron generating tubes <a href="#">H05H 5/00</a> ; neutron sources using isotopes <a href="#">G21G 4/00</a> )}  |
| 3/104       | . . . {using several coupled or uncoupled coils ( <a href="#">G01V 3/101 takes precedence</a> )}  | 5/101       | . . . . {and detecting the secondary Y-rays produced in the surrounding layers of the bore hole}  |
| 3/105       | . . . . {forming directly coupled primary and secondary coils or loops}   | 5/102       | . . . . {the neutron source being of the pulsed type}   |
| 3/107       | . . . . {using compensating coil or loop arrangements}  | 5/104       | . . . . {and detecting secondary Y-rays as well as reflected or back-scattered neutrons}  |
| 3/108       | . . . . {the emitter and the receiver coils or loops being uncoupled by positioning them perpendicularly to each other}   | 5/105       | . . . . {the neutron source being of the pulsed type}   |
| 3/12        | . operating with electromagnetic waves {(operating with millimetre waves <a href="#">G01V 8/005</a> )}  | 5/107       | . . . . {and detecting reflected or back-scattered neutrons}  |
| 3/14        | . operating with electron or nuclear magnetic resonance   | 5/108       | . . . . {the neutron source being of the pulsed type}   |
| 3/15        | . specially adapted for use during transport, e.g. by a person, vehicle or boat   | 5/12        | . . . using gamma or X-ray sources {(gamma sources using isotopes <a href="#">G21G 4/00</a> ; X-ray tubes <a href="#">H01J 35/00</a> )}   |
| 3/16        | . . specially adapted for use from aircraft ( <a href="#">G01V 3/165 - G01V 3/175 take precedence</a> )   | 5/125       | . . . . {and detecting the secondary gamma- or X-rays in different places along the bore hole}  |
| 3/165       | . . operating with magnetic or electric fields produced or modified by the object or by the detecting device (with <a href="#">electromagnetic waves G01V 3/17</a> )  | 5/14        | . . . using a combination of several sources, e.g. a neutron and a gamma source   |
| 3/17        | . . operating with electromagnetic waves {(operating with millimetre waves <a href="#">G01V 8/005</a> )}  | 5/145       | . . . . {using a neutron source combined with a gamma- or X-ray source}   |
| 3/175       | . . operating with electron or nuclear magnetic resonance   | 5/20        | . Detecting prohibited goods, e.g. weapons, explosives, hazardous substances, contraband or smuggled objects  |
| 3/18        | . specially adapted for well-logging  | 5/22        | . . Active interrogation, i.e. by irradiating objects or goods using external radiation sources, e.g. using gamma rays or cosmic rays   |
| 3/20        | . . operating with propagation of electric current  | 5/222       | . . . measuring scattered radiation   |
| 3/22        | . . . using DC  |             |   |
| 3/24        | . . . using AC  |             |   |

|       |  |           |   |
|-------|--|-----------|---|
| 5/223 | . . . {Mixed interrogation beams, e.g. using more than one type of radiation beam}   | 9/007     | . {by detecting gases or particles representative of underground layers at or near the surface ( <a href="#">analysing earth materials G01N 33/24</a> ; <a href="#">analysing gases per se G01N</a> )}  |
| 5/224 | . . . {Multiple energy techniques using one type of radiation, e.g. X-rays of different energies}  | 9/02      | . Determining existence or flow of underground water  |
| 5/226 | . . . using tomography   | 11/00     | <b>Prospecting or detecting by methods combining techniques covered by two or more of main groups <a href="#">G01V 1/00</a> - <a href="#">G01V 9/00</a></b>   |
| 5/228 | . . . {using stereoscopic means}   | 11/002    | . {Details, e.g. power supply systems for logging instruments, transmitting or recording data, specially adapted for well logging, also if the prospecting method is irrelevant ( <a href="#">means for transmitting well survey signals E21B 47/12</a> ; <a href="#">signal transmission systems in general G08C</a> ; <a href="#">transmission in general H04B</a> )} |
| 5/232 | . . . {having relative motion between the source, detector and object other than by conveyor ( <a href="#">G01V 5/226</a> takes precedence)}   | 11/005    | . . {Devices for positioning logging sondes with respect to the borehole wall ( <a href="#">centralising devices for drilling rods or pipes E21B 17/10</a> ; <a href="#">setting or locking tools in boreholes E21B 23/00</a> ; <a href="#">locating objects in boreholes E21B 47/09</a> )}   |
| 5/234 | . . . {Measuring induced radiation, e.g. thermal neutron activation analysis}  | 11/007    | . {using the seismo-electric effect}  |
| 5/26  | . . Passive interrogation, i.e. by measuring radiation emitted by objects or goods   | 13/00     | <b>Manufacturing, calibrating, cleaning, or repairing instruments or devices covered by groups <a href="#">G01V 1/00</a> - <a href="#">G01V 11/00</a></b>   |
| 5/271 | . . {using a network, e.g. a remote expert, accessing remote data or the like}   | 15/00     | <b>Tags attached to, or associated with, an object, in order to enable detection of the object (<a href="#">record carriers for use with machines having a detectable tag or marker G06K 19/00</a>)</b>   |
| 5/281 | . . {detecting special nuclear material [SNM], e.g. Uranium-235, Uranium-233 or Plutonium-239}   | 20/00     | <b>Geomodelling in general</b>  |
| 7/00  | <b>Measuring gravitational fields or waves; Gravimetric prospecting or detecting</b>   |           | <b>NOTE</b>   |
| 7/005 | . {using a resonating body or device, e.g. string ( <a href="#">G01V 7/08</a> - <a href="#">G01V 7/12</a> take precedence; measuring resonant frequency of mechanical vibrations <a href="#">G01H 13/00</a> ; measuring frequency <a href="#">per se G01R 23/00</a> )} |           | This group <a href="#">covers</a> geomodelling or geomodels wherein no prospecting, detecting or measuring technique is specified or relevant.  |
| 7/02  | . Details  | 99/00     | <b>Subject matter not provided for in other groups of this subclass</b>   |
| 7/04  | . . Electric, photoelectric, or magnetic indicating or recording means   | 2200/00   | <b>Details of seismic or acoustic prospecting or detecting in general</b>   |
| 7/06  | . . Analysis or interpretation of gravimetric records  | 2200/10   | . Miscellaneous details   |
| 7/08  | . using balances   | 2200/12   | . . Clock synchronization-related issues  |
| 7/10  | . . using torsion balances, e.g. Eötvös balance  | 2200/14   | . . Quality control   |
| 7/12  | . using pendulums  | 2200/16   | . . Measure-while-drilling or logging-while-drilling  |
| 7/14  | . using free-fall time   | 2210/00   | <b>Details of seismic processing or analysis</b>  |
| 7/16  | . specially adapted for use on moving platforms, e.g. ship, aircraft   | 2210/10   | . Aspects of acoustic signal generation or detection  |
| 8/00  | <b>Prospecting or detecting by optical means</b>   | 2210/12   | . . Signal generation   |
|       | <b>NOTE</b>  | 2210/121  | . . . Active source   |
|       | This group <a href="#">covers</a> the use of {millimetre waves,}infrared, visible or ultraviolet light.  | 2210/1212 | . . . . Shot  |
| 8/005 | . {operating with millimetre waves, e.g. measuring the black losey radiation}  | 2210/1214 | . . . . Continuous  |
| 8/02  | . Prospecting  | 2210/1216 | . . . . Drilling-related  |
| 8/10  | . Detecting, e.g. by using light barriers ( <a href="#">by reflection from the object G01S 17/00</a> )   | 2210/123  | . . . Passive source, e.g. microseismics  |
| 8/12  | . . using one transmitter and one receiver   | 2210/1232 | . . . . Earthquakes   |
| 8/14  | . . . using reflectors   | 2210/1234 | . . . . Hydrocarbon reservoir, e.g. spontaneous or induced fracturing   |
| 8/16  | . . . using optical fibres   | 2210/1236 | . . . . Acoustic daylight, e.g. cultural noise  |
| 8/18  | . . . using mechanical scanning systems  | 2210/125  | . . . Virtual source  |
| 8/20  | . . using multiple transmitters or receivers   | 2210/127  | . . . Cooperating multiple sources  |
| 8/22  | . . . using reflectors   | 2210/129  | . . . Source location   |
| 8/24  | . . . using optical fibres   | 2210/1291 | . . . . Air   |
| 8/26  | . . . using mechanical scanning systems  | 2210/1293 | . . . . Sea   |
| 9/00  | <b>Prospecting or detecting by methods not provided for in groups <a href="#">G01V 1/00</a> - <a href="#">G01V 8/00</a></b>  |           |   |
| 9/002 | . {using fields or radiation detectable only by persons susceptible therefor, e.g. radio-esthesis, dowsing}  |           |   |
| 9/005 | . {by thermal methods, e.g. after generation of heat by chemical reactions}  |           |   |

|           |   |           |  |
|-----------|---|-----------|--|
| 2210/1295 | . . . . Land surface  | 2210/522  | . . . Dip move-out [DMO]   |
| 2210/1297 | . . . . Sea bed   | 2210/53   | . . Statics correction, e.g. weathering layer or transformation to a datum                               |
| 2210/1299 | . . . . Subsurface, e.g. in borehole or below weathering layer or mud line  | 2210/532  | . . . Dynamic changes in statics, e.g. sea waves or tidal influences                                     |
| 2210/14   | . . Signal detection  | 2210/54   | . . Borehole-related corrections   |
| 2210/142  | . . . Receiver location   | 2210/542  | . . . Casing   |
| 2210/1421 | . . . . Air   | 2210/544  | . . . Invasion zone  |
| 2210/1423 | . . . . Sea   | 2210/55   | . . Array focusing; Phased arrays  |
| 2210/1425 | . . . . Land surface  | 2210/56   | . . De-ghosting; Reverberation compensation  |
| 2210/1427 | . . . . Sea bed   | 2210/57   | . . Trace interpolation or extrapolation, e.g. for virtual receiver; Anti-aliasing for missing receivers |
| 2210/1429 | . . . . Subsurface, e.g. in borehole or below weathering layer or mud line  | 2210/58   | . . Media-related  |
| 2210/144  | . . . with functionally associated receivers, e.g. hydrophone and geophone pairs  | 2210/582  | . . . Dispersion   |
| 2210/16   | . . Survey configurations   | 2210/584  | . . . Attenuation  |
| 2210/161  | . . . Vertical seismic profiling [VSP]  | 2210/586  | . . . Anisotropic media  |
| 2210/163  | . . . Cross-well  | 2210/588  | . . . Non-linear media   |
| 2210/165  | . . . Wide azimuth  | 2210/59   | . . Other corrections  |
| 2210/167  | . . . Very long offset  | 2210/60   | . Analysis   |
| 2210/169  | . . . Sparse arrays   | 2210/61   | . . Analysis by combining or comparing a seismic data set with other data                                |
| 2210/20   | . Trace signal pre-filtering to select, remove or transform specific events or signal components, i.e. trace-in/trace-out | 2210/612  | . . . Previously recorded data, e.g. time-lapse or 4D  |
| 2210/21   | . . Frequency-domain filtering, e.g. band pass  | 2210/6122 | . . . . Tracking reservoir changes over time, e.g. due to production                                     |
| 2210/22   | . . Time-domain filtering   | 2210/6124 | . . . . . Subsidence, i.e. upwards or downwards  |
| 2210/23   | . . Wavelet filtering   | 2210/614  | . . . Synthetically generated data   |
| 2210/24   | . . Multi-trace filtering   | 2210/616  | . . . Data from specific type of measurement   |
| 2210/242  | . . . F-k filtering, e.g. ground roll   | 2210/6161 | . . . . Seismic or acoustic, e.g. land or sea measurements   |
| 2210/244  | . . . Radon transform   | 2210/6163 | . . . . Electromagnetic  |
| 2210/25   | . . Transform filter for merging or comparing traces from different surveys   | 2210/6165 | . . . . Gravitational  |
| 2210/26   | . . Modulation or demodulation, e.g. for continuous sources   | 2210/6167 | . . . . Nuclear  |
| 2210/27   | . . Other pre-filtering   | 2210/6169 | . . . . using well-logging   |
| 2210/30   | . Noise handling  | 2210/62   | . . Physical property of subsurface  |
| 2210/32   | . . Noise reduction   | 2210/622  | . . . Velocity, density or impedance   |
| 2210/322  | . . . Trace stacking  | 2210/6222 | . . . . Velocity; travel time  |
| 2210/324  | . . . Filtering   | 2210/6224 | . . . . Density  |
| 2210/3242 | . . . . Flow noise  | 2210/6226 | . . . . Impedance  |
| 2210/3244 | . . . . Cultural noise  | 2210/624  | . . . Reservoir parameters   |
| 2210/3246 | . . . . Coherent noise, e.g. spatially coherent or predictable  | 2210/6242 | . . . . Elastic parameters, e.g. Young, Lamé or Poisson  |
| 2210/3248 | . . . . Incoherent noise, e.g. white noise  | 2210/6244 | . . . . Porosity   |
| 2210/34   | . . Noise estimation  | 2210/6246 | . . . . Permeability   |
| 2210/36   | . . Noise recycling, i.e. retrieving non-seismic information from noise   | 2210/6248 | . . . . Pore pressure  |
| 2210/38   | . . Noise characterisation or classification  | 2210/626  | . . . with anisotropy  |
| 2210/40   | . Transforming data representation  | 2210/63   | . . Seismic attributes, e.g. amplitude, polarity, instant phase  |
| 2210/41   | . . Arrival times, e.g. of P or S wave or first break   | 2210/632  | . . . Amplitude variation versus offset or angle of incidence [AVA, AVO, AVI]                            |
| 2210/42   | . . Waveform, i.e. using raw or pre-filtered trace data   | 2210/64   | . . Geostructures, e.g. in 3D data cubes   |
| 2210/43   | . . Spectral  | 2210/641  | . . . Continuity of geobodies  |
| 2210/44   | . . F-k domain  | 2210/642  | . . . Faults   |
| 2210/45   | . . F-x or F-xy domain  | 2210/643  | . . . Horizon tracking   |
| 2210/46   | . . Radon transform   | 2210/644  | . . . Connectivity, e.g. for fluid movement  |
| 2210/47   | . . Slowness, e.g. tau-pi   | 2210/645  | . . . Fluid contacts   |
| 2210/48   | . . Other transforms  | 2210/646  | . . . Fractures  |
| 2210/50   | . Corrections or adjustments related to wave propagation  | 2210/647  | . . . Gas hydrates   |
| 2210/51   | . . Migration   | 2210/65   | . . Source localisation, e.g. faults, hypocenters or reservoirs  |
| 2210/512  | . . . Pre-stack   | 2210/66   | . . Subsurface modeling  |
| 2210/514  | . . . Post-stack  |           |  |
| 2210/52   | . . Move-out correction   |           |  |

## G01V

- 2210/661 . . . Model from sedimentation process modeling,  
e.g. from first principles
- 2210/663 . . . Modeling production-induced effects
- 2210/665 . . . using geostatistical modeling
- 2210/6652 . . . . Kriging
- 2210/667 . . . Determining confidence or uncertainty in  
parameters
- 2210/67 . . Wave propagation modeling
- 2210/671 . . . Raytracing
- 2210/673 . . . Finite-element; Finite-difference
- 2210/675 . . . Wave equation; Green's functions
- 2210/677 . . . Spectral; Pseudo-spectral
- 2210/679 . . . Reverse-time modeling or coalescence  
modelling, i.e. starting from receivers
- 2210/70 . Other details related to processing
- 2210/72 . . Real-time processing
- 2210/74 . . Visualisation of seismic data