1: Illumination Model
many types of light sources & optical effects

- linear
- area
- torus
- cylindrical
- sky light

1982
radiosity (diffuse)
radiosity (specular)
spot light (scattering)
shadows of light (scattering)
diffraction

1985

interreflection of light (Radiosity)

1985 (first image in the world)

2: Rendering (Bezier clipping)

- Ray tracing SIG87
- Scan line algorithm
- Curved Tubular Objects 1992
- Metaball EG87
- GPU-based Metaball EG08

3: Natural Phenomena (1991 -)

- Terrain
  mountains, dunes, stones, sands
- Atmosphere
  sky color (skylight), fog effects, shafts of light
- Water
  waves, caustics, water color, shafts of light
- Natural Light
  sunlight path through atmosphere, skylight, lightning
- Volumetric objects/gas
  clouds, smoke/gas, snow

4: Visual impact

- montage
  Illuminated by sky light
- terrain model
  illuminated by sky light

Clouds/smoke

- SIG87
- Multiple scattering SIG06
- image-based PG98
- Cell auto: SIG2000
casa2006
- sketch-based SIG2008

4: Visual impact

- montage
  Illuminated by sky light
- terrain model
9: 2D shape processing

- Morphing
- Shape interpolation

10: Lens simulation/Computational photography

- Presbyopia (far-sightedness)
- Human Eye Depth of Field
- Refocusing
- Extraction Depth and Matte