Utils

4D hypersurface

$$w(x, y, z) := \cos(2\cdot\pi\cdot(x+y-2\cdot z)) + \cos(2\cdot\pi\cdot(y+z-2\cdot x)) + \cos(2\cdot\pi\cdot(z+x-2\cdot y))$$

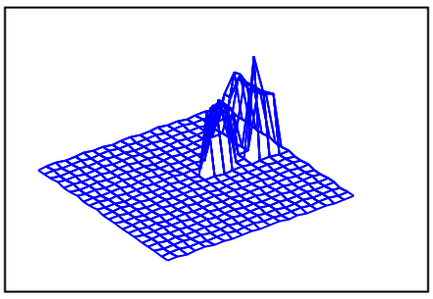
Domain $D(x, y, z) := (0<x<1)\cdot(x<y<1)\cdot(y<z<1)$

2D grid $N := 20$ $xg := pRange(0, 1, N)$ $yg := pRange(0, 1, N)$

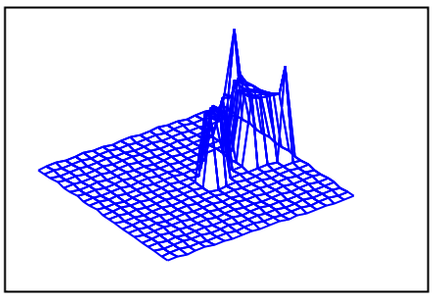
Level surfaces (like level courves) $nz := [1..6]$ $zg := pRange(0.5, 0.9, length(nz))$

```
Sols(zo) := | F(x, y) := | if D(x, y, zo)
                          |   | f(z) := w(x, y, z)
                          |   | zk := S_NR("f", zo)
                          |   | stack(x, y, zk·D(x, y, zk))
                          | else
                          |   stack(x, y, 0)
            | pMesh("F", xg, yg)
```

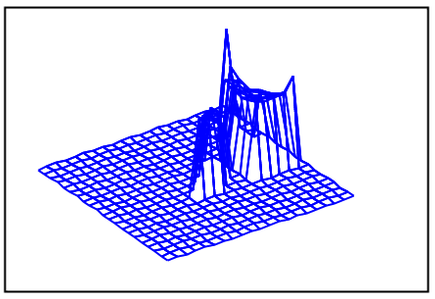
$S_{nz} := Sols(zg_{nz})$ $\gamma := pView2(145°, 48°)$



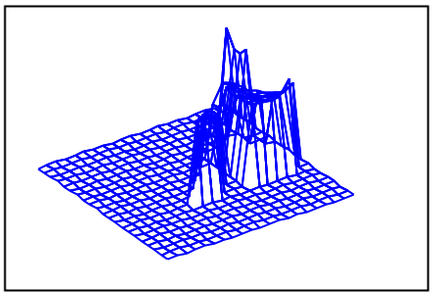
$S_1 \cdot \gamma$



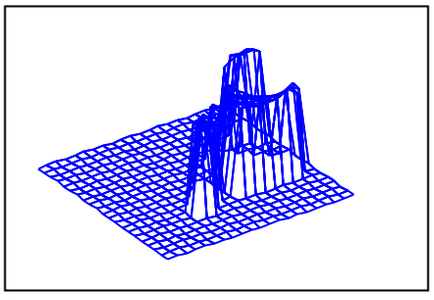
$S_2 \cdot \gamma$



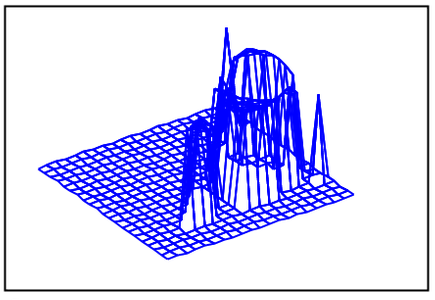
$S_3 \cdot \gamma$



$S_4 \cdot \gamma$



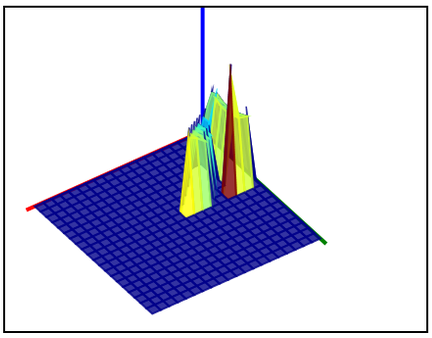
$S_5 \cdot \gamma$



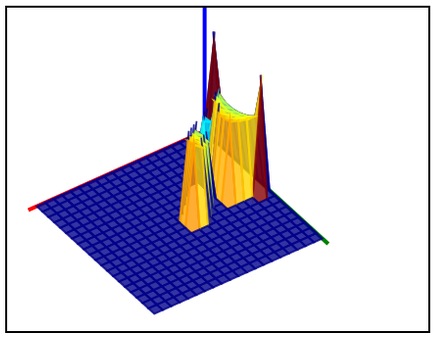
$S_6 \cdot \gamma$

With colors

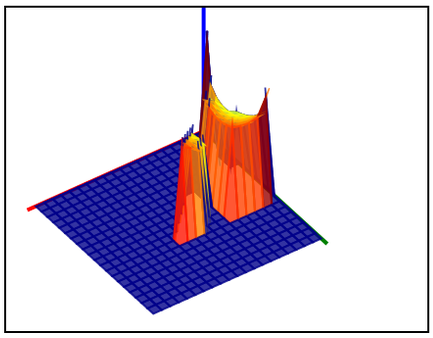
$G := pCmapJet(200, 0.8)$ $M_{nz} := pShow(S_{nz}, stack(N, N), \gamma, G, G)$



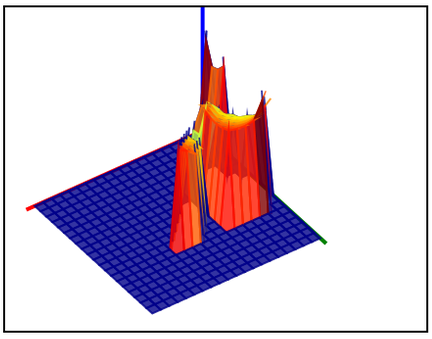
M_1



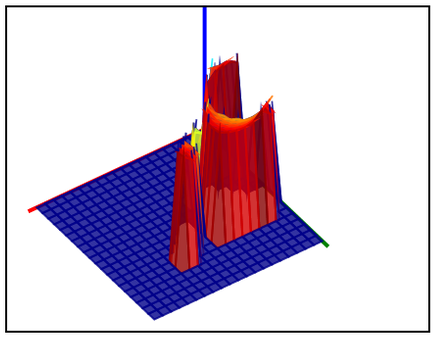
M_2



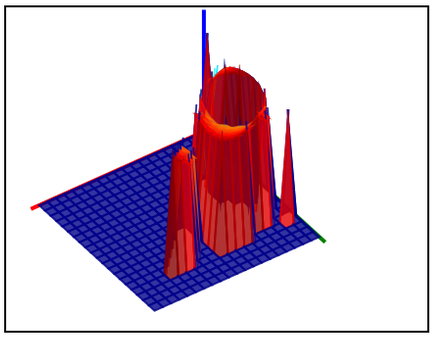
M_3



M_4



M_5



M_6

Alvaro