```
banana = x1^2/100 + (x2 + b x1^2 - 100 b) ^ 2
b = 0.05
phi[x_, y_] = {x, y + b * x^2 - 100 * b};
phiI[x_, y_] = {x, y - b * x^2 + 100 * b};
```

Notice that phi has unit Jacobian so that the density of phi(X) is simply pdf(phiInverse(x)) where pdf is the pdf of X

(New Kernel) In[26]:=

```
randn[] := RandomVariate[NormalDistribution[0, 40]]
```

(New Kernel) In[27]:=

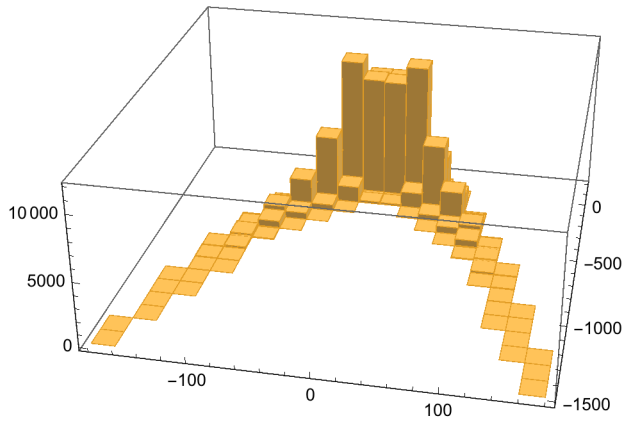
```
list = Table[phiI[randn[], randn[]], {i, 100 000}]
Histogram3D[list]
```

(New Kernel) Out[27]=

```
{{15.1304, -26.7889}, {-18.4466, -64.8763},
 {-81.3963, -303.857}, {67.61, -176.815}, ··· 99 993 ··· ,
 {-54.5252, -155.577}, {-7.1767, -67.7666}, {32.7927, -68.0075}}
```

large output | show less | show more | show all | set size limit...

(New Kernel) Out[28]=



(New Kernel) In[29]:=

```
DensityHistogram[list, Automatic]
```

(New Kernel) Out[29]=