

```
> u := (x,t) -> (4/Pi)*sum((1/(2*n-1))*exp(-(2*n-1)^2*t)*sin((2*
n-1)*x),n=1..10);
```

$$u := (x, t) \rightarrow \frac{4 \left(\sum_{n=1}^{10} \frac{e^{-(2n-1)^2 t} \sin((2n-1)x)}{2n-1} \right)}{\pi}$$

(1)

```
> plot(u(x,0),x=0..Pi);
```

```
> animate(u(x,t),x=0..Pi,t=0..5);
```

```
> with(plots):
```

```
> animate3d(sin(2*x)*sin(2*y)*cos(2*t),x=0..Pi,y=0..Pi,t=0..Pi);
```