

```
[ > with(plots):
> u:=(x,t)->sum((( -1)^(n+1)/(2*n-1)^2)*sin((2*n-1)*x)*exp(-n^2*t),n=
1..30);
```

$$u := (x, t) \rightarrow \sum_{n=1}^{30} \frac{(-1)^{(n+1)} \sin((2n-1)x) e^{(-n^2 t)}}{(2n-1)^2}$$

```
[ > animate(u(x,t),x=0..Pi,t=0..3,numpoints=500);
>
```