「ガウス過程と機械学習」

P39. ガウス分布

In [1]:
```julia
using Distributions
using Plots
```

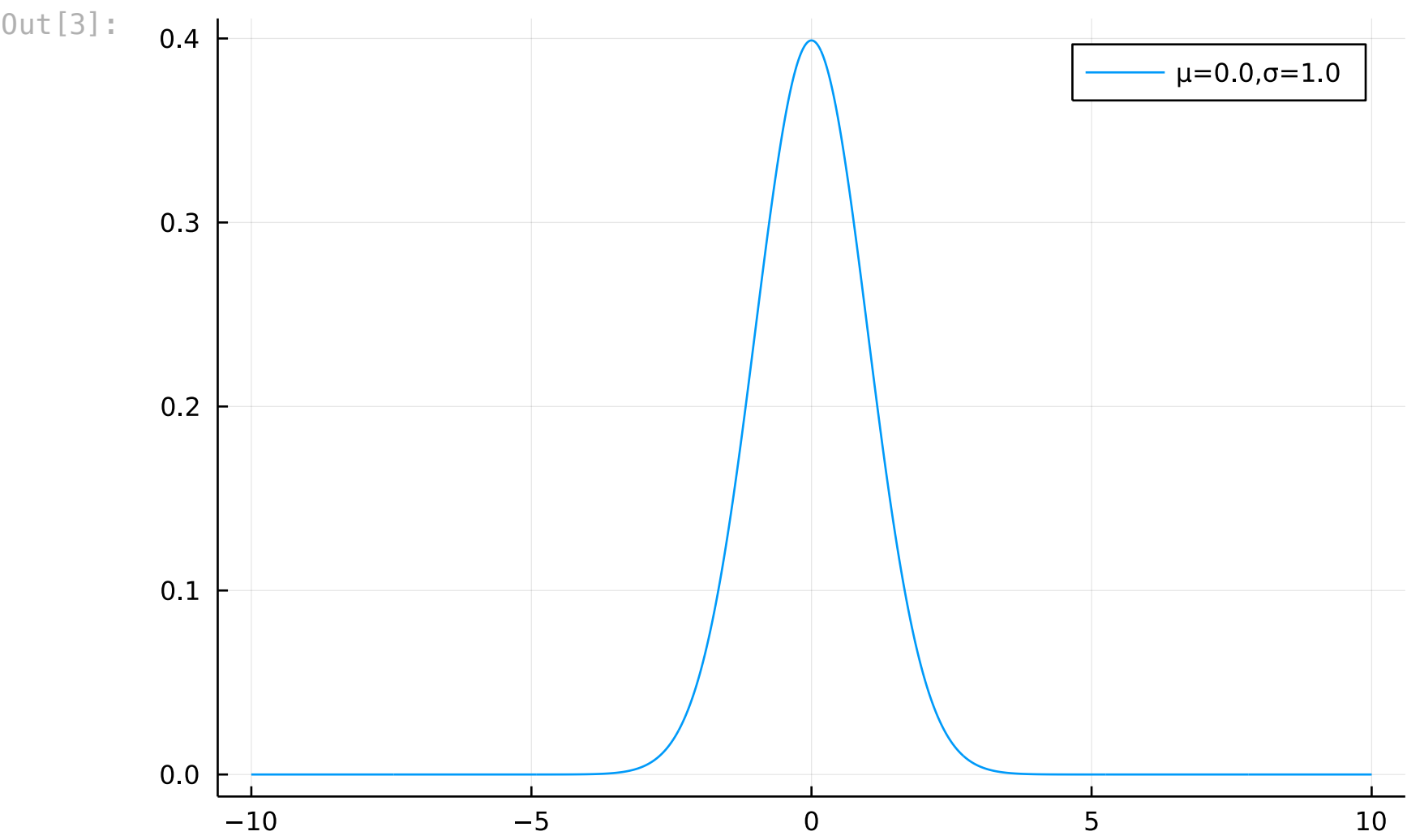### 式から計算した場合

In [2]:
```julia
function gauss(x, μ, σ)
    cons = 1.0 / √(2 * π * σ)
    cons * exp.(-(xs .- μ).^2 ./ (2 * σ^2))
end
```

Out[2]: `gauss (generic function with 1 method)`

In [3]:
```julia
xs = range(-10, 10, length=1000)
μ = 0.0
σ = 1.0

prob = gauss(xs, μ, σ)
plot(xs, prob, label="μ=0.0,σ=1.0")
```
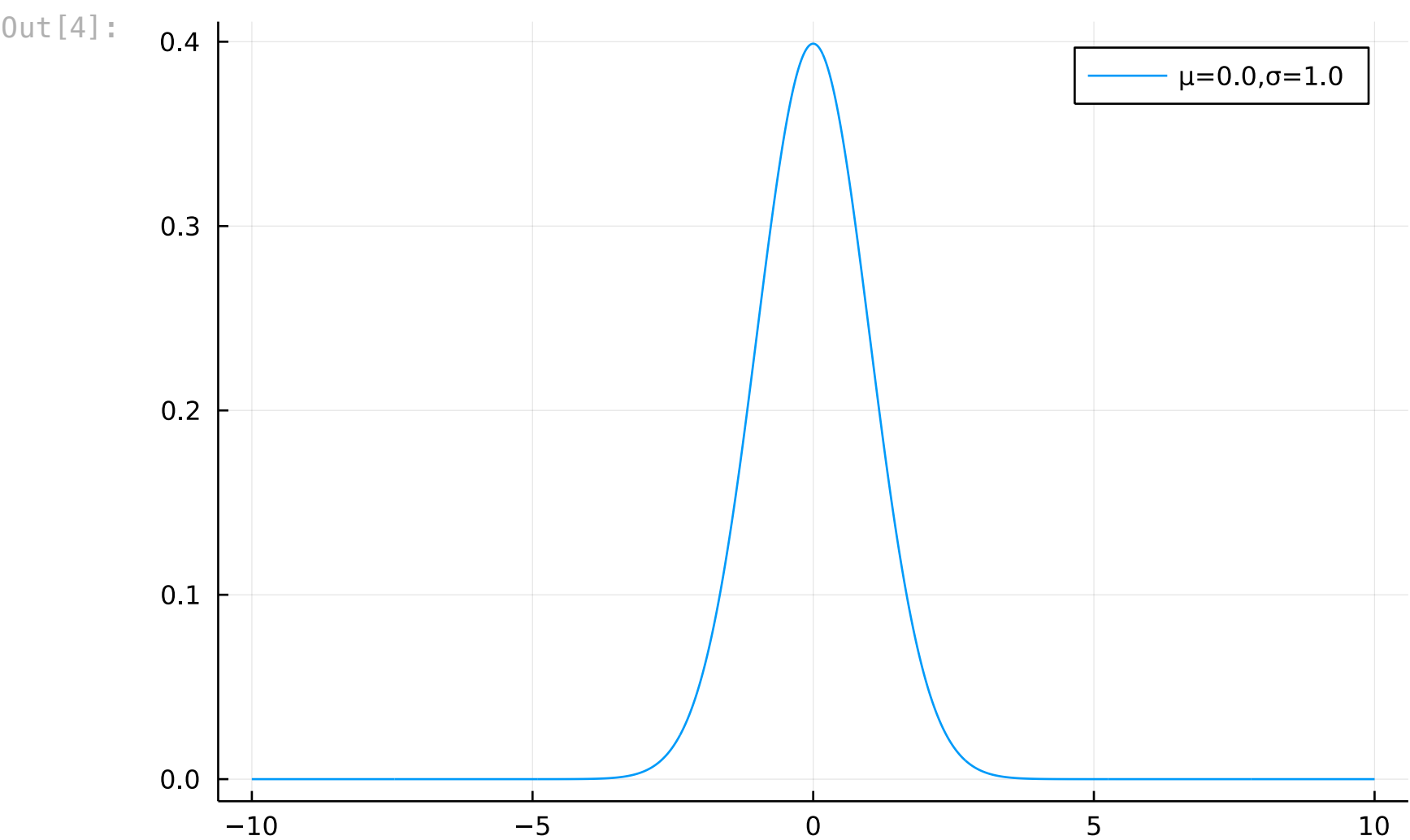
Out[3]:

Distributions.jiを使った場合

In [4]:
```julia
plot(xs, pdf.(Normal(0.0, 1.0), xs), label="μ=0.0,σ=1.0")
```

Out[4]:

In [ ]: