

TypeStabilityExperiment

September 18, 2016

```
In [ ]: const N = 100000
        function typeunstable(x::Number)
            for i=1:N
                x += rand()
            end
            x
        end
        x = 1
        @time typeunstable(x)
        x = 1.0
        @time typeunstable(x)

        function typeunstable2(x::Number)
            float(x)
            function wrapped()
                for i=1:N
                    x += rand()
                end
                x
            end
            wrapped()
        end
        x=1
        @time typeunstable2(x)
        x = 1.0
        @time typeunstable2(x)

        function typestable(x::Number)
            function wrapped(x::Float64)
                for i=1:N
                    x += rand()
                end
                x
            end
            wrapped(x::Int) = wrapped(float(x))
            wrapped(x)
```

```

end
x=1
@time typestable(x)
x = 1.0
@time typestable(x)

function wrapped2(x::Float64)
    for i=1:N
        x += rand()
    end
    x
end
wrapped2(x::Int) = wrapped2(float(x))
function typestable2(x::Number)
    wrapped2(x)
end

x=1
@time typestable2(x)
x = 1.0
@time typestable2(x)

```