TypeStabilityExperiment

October 22, 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)
```