

3.– 6. September 2012  
in Nürnberg



# Herbstcampus

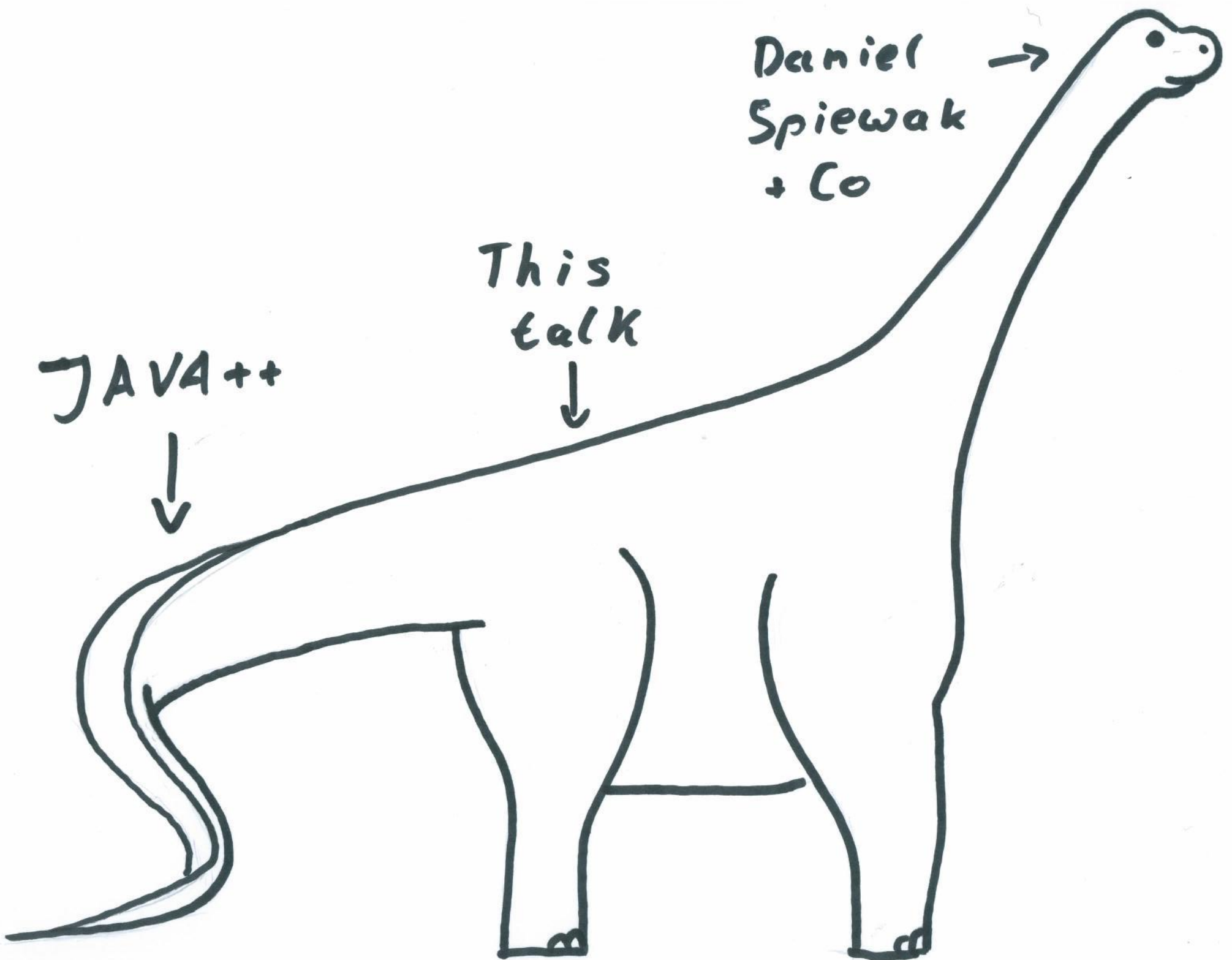
Wissenstransfer  
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## Taschenspielertricks

Spaßige Dinge, die man mit dem Scala-Typsysteem machen kann

Jens Schauder

T-Systems on site services GmbH



JAVA++



This talk



Daniel  
Spiewak  
+ Co



# Type vs Class

Scala

# Implicit Conversion

# Structural Types

# Path Dependent Types

# Phantom Types



$(\{\text{type } \lambda[\alpha]=(\mathbb{R}, \alpha)\})\#\lambda$

# Type Lambdas

```
trait Functor[F[_]] ...
```

```
implicit def Tuple2Functor[R]:
```

```
  Functor[({type λ[α]=(R, α)})#λ]
```

```
  = new Functor[({type λ[α]=(R, α)})#λ] {
```

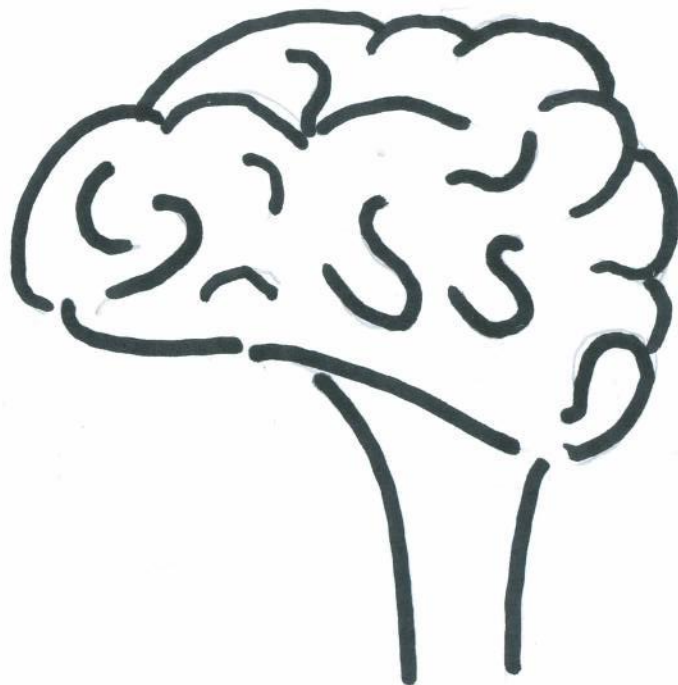
```
    def fmap[A, B](r: (R, A), f: A => B) = (r._1, f(r._2))
```

```
  }
```

Bool



+



=



Daniel Spiewak „High Wizardry in the Land of Scala“

<http://vimeo.com/13518456>

Apocalisp Type-Level Programming in Scala

<http://apocalisp.wordpress.com/2010/06/08/type-level-programming-in-scala/>

Jespers HList in Scala

<http://jnordenberg.blogspot.com/2008/08/hlist-in-scala.html>

Scalaz

<http://code.google.com/p/scalaz/>

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**Vielen Dank!**

**Jens Schauder**

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