



# Workshop on T-Varieties

## ZEIT:

3.8.2006, 11:00 Uhr - 4.8.2006, 16:00 Uhr

## ORT:

Freie Universität Berlin  
Institut für Mathematik  
Arnimallee 3, Hörsaal 1  
14195 Berlin

## PROGRAMM:

### 3.8.2006

11:00 - 13:00 **Rene Birkner**

#### **GIT and Chow Quotients by Tori**

In this talk we will give a gentle introduction to invariant theory. In particular, categorical, good and geometric quotients, as well as linearisations and (semi) stable points will be defined. As an application, we will see how the torus acts on and that GIT-quotients are toric (fiberpolytopes). The Chow quotient is given by the Minkowski sum of them.

14:00 - 16:00 **Prof. Klaus Altmann**

#### **Affine T-Varieties**

We will look at affine toric varieties or as T-varieties and describe closed T-subvarieties. As a useful tool, we will give the general construction of polyhedral divisors and, in the special case of codimension 1 actions, we will compare these with toroidal varieties. Examples are the Russell cubic and certain non-normal surfaces.

16:00 - 18:00 **Hendrik Süß**

#### **Kontakt:**

Humboldt-Universität zu Berlin . Institut für Mathematik  
SFB 647 . Unter den Linden 6 . 10099 Berlin  
Tel. +49 30 2093 1804 . Fax. +49 30 2093 2727  
sfb647@math.hu-berlin.de

[www.raumzeitmaterie.de](http://www.raumzeitmaterie.de)

## **Morphisms and Gluing**

The topics of this talk are morphisms among affine T-varieties, localization by homogeneous elements and open embeddings. We will have a look at divisorial fans; these will be illustrated by examples like toric vector bundles and compactifications of affine -surfaces.

4.8.2006

10:30 - 13:00 **Robert Vollmert**

### **Grass $(2,n)$ as a fancy divisor on $M_{0,n}$**

We will describe Chow quotients and secondary polytopes and see that

equals the Chow quotient of Grass

. Then we will calculate an affine chart of Grass

or of Grass

and have a look at the affine cone over a projective T-variety.

14:00 - 17:00 Open discussion on further topics

#### **Kontakt:**

Humboldt-Universität zu Berlin . Institut für Mathematik  
SFB 647 . Unter den Linden 6 . 10099 Berlin  
Tel. +49 30 2093 1804 . Fax. +49 30 2093 2727  
sfb647@math.hu-berlin.de

[www.raumzeitmaterie.de](http://www.raumzeitmaterie.de)