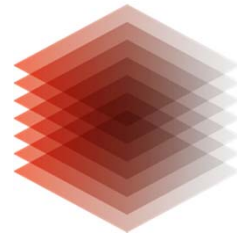


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LEIBNIZ-INFORMATIONSZENTRUM  
TECHNIK UND NATURWISSENSCHAFTEN  
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**TIB**

## **TIB AV-Portal**

Margret Plank  
Marburg, 23. November 2018  
Media Rep Workshop

# Das TIB AV-Portal (av.tib.eu)



- Plattform für **qualitätsgeprüfte wissenschaftliche Videos**
- online seit April 2014
- entwickelt durch TIB und HPI
- 17.100 Videos (11/2018)
- Konferenzaufzeichnungen, Vorlesungen, Experimente, Video-Abstracts, Simulationen Animationen etc.
- vorwiegend unter **Open-Access-Lizenzen**

A screenshot of the TIB AV-Portal website. The header includes navigation links for 'Merkliste', 'Kontakt', 'English', and 'Anmelden'. Below this, the 'TIB AV-PORTAL' logo is displayed on the left, and on the right, there are links for 'FÄCHER', 'HERAUSGEBER', 'HOCHLADEN', and 'DAS TIB AV-PORTAL'. A search bar is present with the placeholder text 'Suchen nach Personen, Orten, Themen...' and a red 'Suchen' button. Below the search bar, there are radio buttons for 'Online-Bestand', 'Offline-Bestand', and 'Gesamtbestand'. The main content area is titled 'NEU HINZUGEFÜGTE VIDEOS' and features a grid of video thumbnails categorized by subject: 'PHYSIK', 'MATHEMATIK', 'INFORMATIK', 'TECHNIK', 'CHEMIE', and 'ARCHITEKTUR'. Each thumbnail includes a play button icon, a title, and a duration indicator.

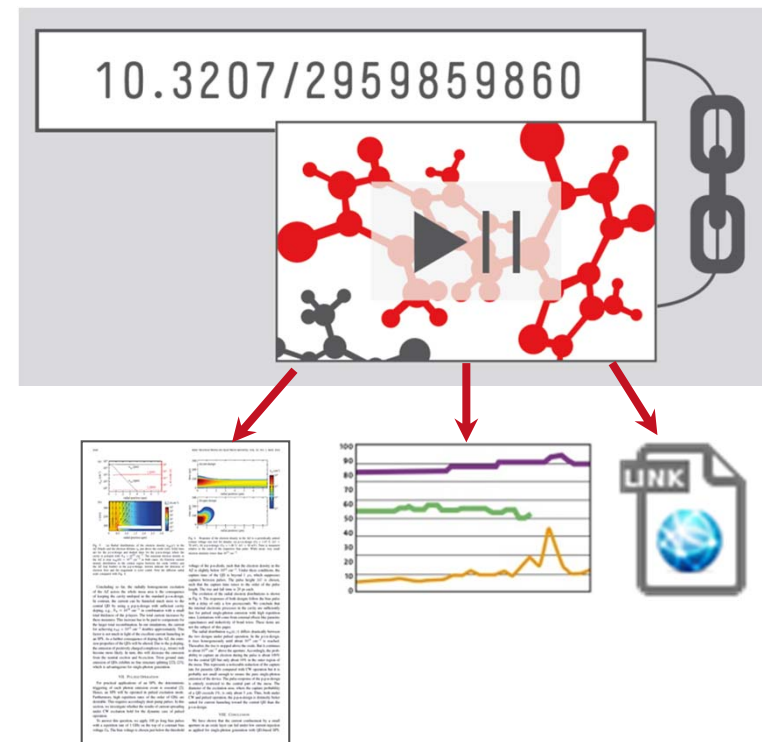


Filmsammlung Institut für den wissenschaftlichen Film, Göttingen (1956-2010)

- **Ca. 10.000 IWF-Filme** wissenschaftliche Filme (1911- ca. 2006) mit heterogener Rechtesituation
- **Nachverhandlung von Rechten** (möglichst Open Access) > **5.000 Rechte geklärt**
- Soweit rechtlich möglich, Online-Bereitstellung (TIB AV-Portal) > **1.870**
- **1.000 Filme unter Open-Access Lizenz**
- **Katalogisate ab 2018 auf av.tib.eu** > **Metadaten unter CC0**
- TIB erteilt **Unterlizenzverträge** für Wissenschaft, Ausbildung, Fernsehen, öff. Vorführung, etc.
- **DVD-Bestellung** sowie **Sichtung analoger Medien vor Ort**
- **Projekt DELFT** (Digitalisierung Ethnologischer Filmbestand)

# AV-Portal Dienstleistungen

- Hosting im TIB AV Repository
- Standardisierte Metadaten
- Metadaten Anreicherung aus Sprach-, Text-, und Bilderkennung
- Linked-open Data
- Permanente Zitierbarkeit: DOI / MFID
- Verlinkung mit weiterführendem Material
- Embed code
- Langzeitarchivierung in Rosetta / ExLibris
- Rechtssicheres Publizieren / Lizenzmanagement
- Konferenzaufzeichnungen
- Workshops: z.B. „Wie produziere ich ein wissenschaftliches Videoabstract?“

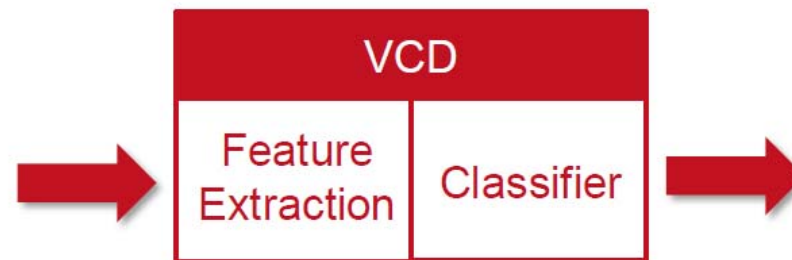
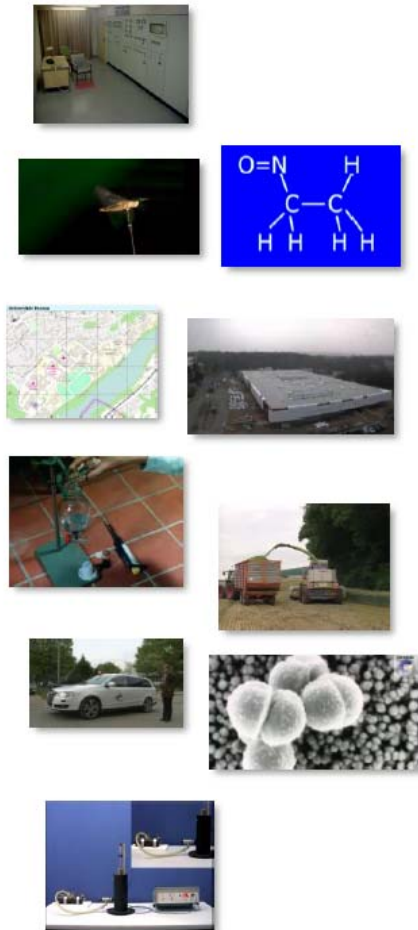


# Automatische Videoanalyse



The screenshot shows the TIB AV-Portal interface for a video titled "Krummer Lichtstrahl". The interface includes a search bar at the top right with the text "Suchen nach Personen, Orten, Themen..." and a "Suchen" button. Below the search bar is a video player showing a man holding a scroll. To the right of the video player is a sidebar titled "Automatisierte Medienanalyse" with a "BETA" label. The sidebar has two tabs: "Erkannte Entitäten" (selected) and "Sprachtranskript". Below the tabs is a search input field. There are three main buttons: "Spracherkennung" (yellow), "Texterkennung" (blue), and "Bildinhalt" (green). Below these are several rows of tags representing detected entities, such as "Lieberad", "Lichtstrahl", "Lichtstrahl", "Wetter", "Material", "Brechzahl", "Laserstrahlung", "Lösung", "Computeranimation", "Flüssigkeit", "Niederspannungsnetz", "Video", "Pohl, Robert Wichard", and "Institut für den Wissenschaftlichen Film". At the bottom of the sidebar is an "Embed Code" field.

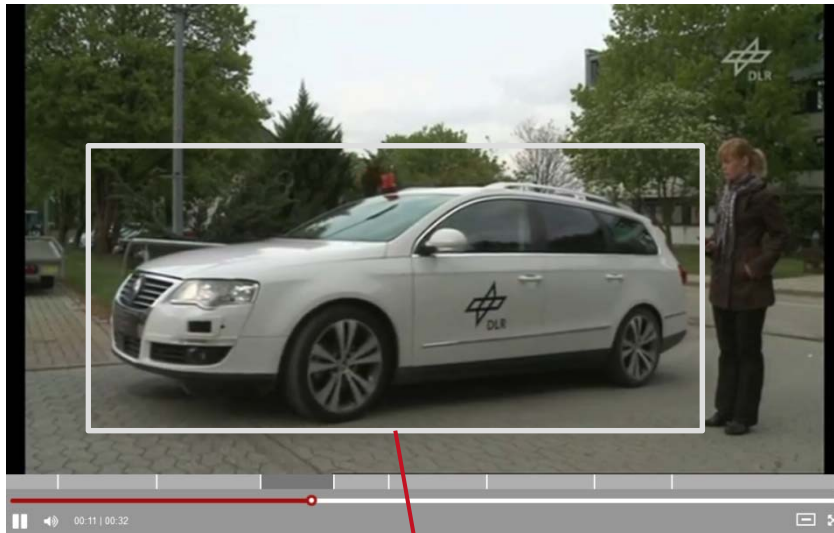
# Bildererkennung



- 73 Konzepte definiert
- Neuronale Netze
- Maschinelles Lernen
- 50.000 Trainingsbilder



# Bilderkennung



Kraftfahrzeug

Chemisches Experiment



# Automatische Videoanalyse – NEL



## Named Entity Linking

- Grundlage: Audio-/OCR-Transkripte
- Wissensbasis:
  - 63.356 GND Entitäten
  - TIB Kernfächer

## Cross-linguales Mapping

- heuristisches Verfahren
- Englische Label ermittelt über:
  - DBpedia
  - LCSH, MACS, TEMA

The screenshot displays the TIB AV-Portal interface. At the top, there is a search bar and navigation options for 'Online-Bestand', 'Offline-Bestand', and 'Gesambestand'. The main content area features a video player with a video titled 'What is good scientific practice for research software?'. To the right of the video player is the 'Automatisierte Medienanalyse' (Automated Media Analysis) tool, which is currently in 'BETA' status. This tool provides a 'Erkannte Entitäten' (Recognized Entities) section with a search bar and filters for 'Sprachkennung', 'Texterkennung', and 'Bildinhalt'. Below this, there is a grid of tags representing various entities, such as 'Sampter', 'Datenanalyse', 'Software', and 'Schulung'. The bottom section of the interface is dedicated to 'Metadaten' (Metadata), which is divided into 'Formale Metadaten' (Formal Metadata) and 'Inhaltliche Metadaten' (Content Metadata). The 'Formale Metadaten' table includes fields like 'Titel', 'Serientitel', 'Teil', 'Anzahl der Teile', 'Autor', 'Lizenz', 'DOI', 'Herausgeber', 'Erscheinungsjahr', and 'Sprache'. The 'Inhaltliche Metadaten' section includes an 'Abstract' and a 'Zugehöriges Material' (Associated Material) section with a link to a PDF document titled 'FOLGENDE RESSOURCE IST BEGLEITMATERIALIUM ZUM VIDEO'.

Metadaten	
Formale Metadaten	
Titel	What is good scientific practice for research software?
Serientitel	2nd Conference on Non-Textual Information: Software and Services for Science (S3), May 10-11, 2017 in Hannover
Teil	2
Anzahl der Teile	13
Autor	Förstner, Konrad U.
Lizenz	CC-Namensnennung 3.0 Deutschland:  Sie dürfen das Werk bzw. den Inhalt zu jedem legalen Zweck nutzen, verändern und in unveränderter oder veränderter Form vervielfältigen, verbreiten und öffentlich zugänglich machen, sofern Sie den Namen des Autors/Rechtsinhabers in der von ihm festgelegten Weise nennen.
DOI	10.5446/31028
Herausgeber	Technische Informationsbibliothek (TIB)
Erscheinungsjahr	2017
Sprache	Englisch

Inhaltliche Metadaten	
Fachgebiet	Informatik
Abstract	Software has become an essential component in basically every part of the research cycle. Still, there are no comprehensive guidelines how core principles of good scientific practice like transparency and reproducibility can and should be applied to research software. Further open questions are how to guarantee high quality of such software, how current and future researchers need to be trained and incentivized to generate sustainable software. To ensure the frictionless reuse and long term availability of software, dedicated framework conditions and infrastructure for research software need to be established. At the same time knowledge about open/libre software licenses needs to be disseminated. These and numerous other issues were so far only partially and inconsistently addressed by German universities and funding/research institutions. The Alliance of Science Organizations which consists of all large German research organisations (DFG, Fraunhofer Society, Helmholtz Association, Leibniz Association, Max Planck Society) and the universities has launched the ad-hoc working group "Research Software" as part of its initiative "Digital Information" to propose solutions for these issues. This working group aims to address the general questions regarding research software and to compile a set of guidelines and recommendations for the German and international research community. In this talk these questions and their potential solutions will be presented and discussed.

Zugehöriges Material

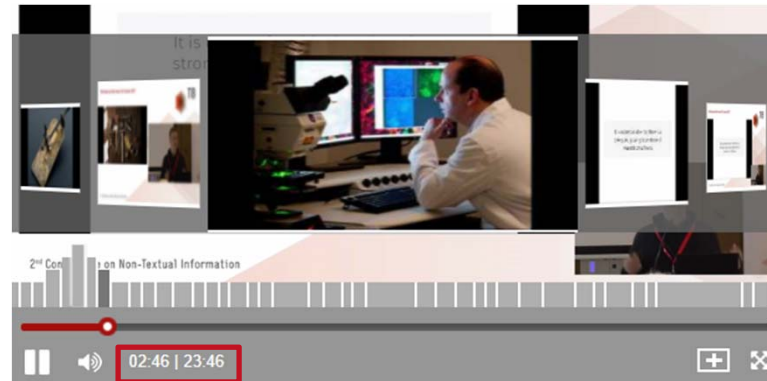
FOLGENDE RESSOURCE IST BEGLEITMATERIALIUM ZUM VIDEO

[\[Slide\] What is good scientific practice for research software? if](#)



# Automatische Videoanalyse – Ergebnisse

Videosegmente



Sprachtranskript

02:46

hitting science well about what people images that in software to crimes this data right  
you need these tools there is no signs without software today and minus catching  
maybe butterflies that at some point you would use this to a generator a database of the  
butterflies again and researchers need maybe to classify all this so software is essential  
for science today the it can also

Schlagwörter

02:44

Resultant

Point (geometry)

Database

Service (economics)

Information

Whiteboard

Computer animation

Software

Software

Right angle

Sign (mathematics)

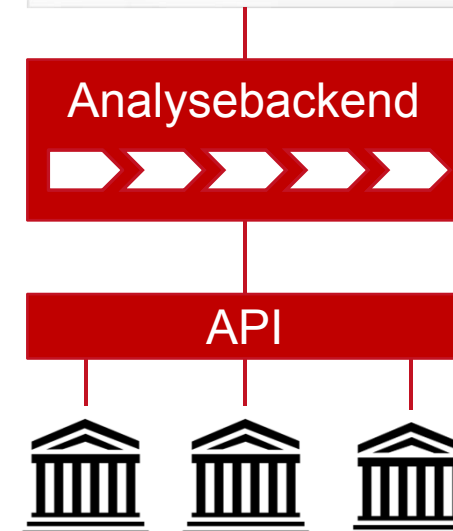
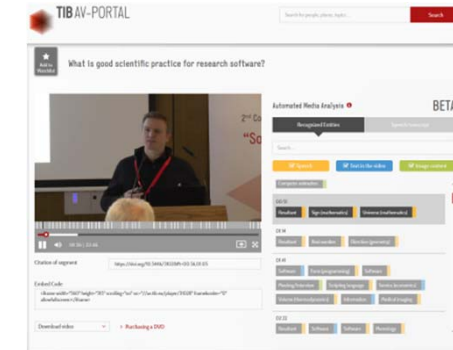
Game controller

Medical imaging

Function (mathematics)

## Future Work

- **Co-branding / Whitelabeling Frontend**
- Modernisierung und Modularisierung
  - Bereitstellung Frontend in eigenem CI
- **Videoanalyse as a service**
  - Modernisierung und Erweiterung Analysemodule
  - Bereitstellung Analyseverfahren via API



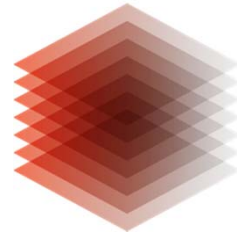
**Live Demo**



**<https://av.tib.eu/>**

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Thank you for your attention!

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