CCM002
Metodologia de Pesquisa em Ciência da Computação

Preparação de um trabalho de pesquisa:
- Método, Introdução e Resumo

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QS-2020

Sobre nossa aula anterior de RS
- Ferramentas

Gerenciamento de referências

	Free	Protocol definition	Bibliographic reference manager	Citation export	Attributes customization	Automatic classification of papers	Similar papers identification
JabRef	Yes	No	Yes	Yes	Yes	No	No
EndNote	No	No	Yes	Yes	Yes	No	No
ProCite	No	No	Yes	No	No	No	No
Reference manager	No	No	Yes	No	No	No	No
RefWorks	No	No	Yes	Yes	No	No	No
BibEdt	Yes	No	Yes	No	No	No	No
Zotero	Yes	No	Yes	Yes	Yes	No	No
Biblioscape	No	No	Yes	No	No	No	No
Bookends	Yes	No	Yes	Yes	Yes	No	No
Library master	No	No	Yes	Yes	Yes	No	No
Mendeley	No	No	Yes	Yes	Yes	No	No
Mekentosj	No	No	Yes	Yes	No	No	No
SLR tool	Yes	Yes	Yes	Yes	No	No	No
StArt	Yes	Yes	Yes	No	Yes	Yes	Yes

Fabbri, S., Hernandes, E., Di Thommazo, A., Belgamo, A., Zamboni, A. and Silva, C., 2012, June. Using information visualization and text mining to facilitate the conduction of systematic literature reviews. In International Conference on Enterprise Information Systems (pp. 243-256). Springer Berlin Heidelberg.

Jabref

JabRef is an open-sourced, cross-platform citation and reference management software.[3][4] It uses BibTeX and BibLaTeX as its native formats and is therefore typically used for LaTeX.[5] The name JabRef stands for **J**ava, **A**lver, **B**atada, **Ref**erence. The original version was released on November 29, 2003.[6]

JabRef provides an interface for editing BibTeX files, for importing data from online scientific databases, and for managing and searching BibTeX files. JabRef has been released under the terms of MIT license since version 3.6 (and was under the GPL license before). JabRef has a target audience of academics and many university libraries have written guides on its usage.[7][8][9]

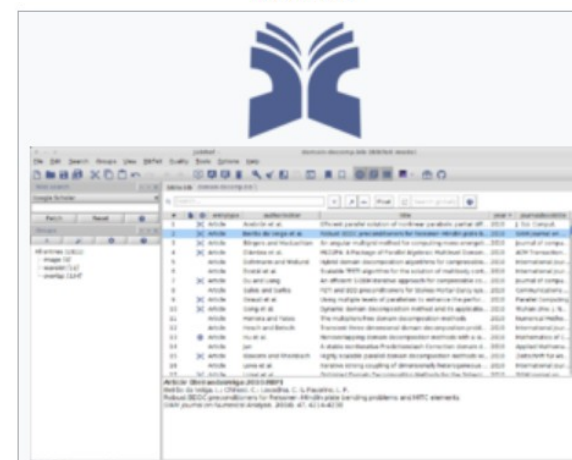| JabRef	
JabRef 3.6 under Linux	
Original author(s)	Morten O. Alver, Nizar N. Batada, et al.
Developer(s)	The JabRef team[1]
Initial release	29 November 2003 (16 years ago)
Stable release	5.0 / 9 March 2020 (6 months ago)[2]
Repository	github.com/JabRef/jabref 🖉
Written in	Java
Operating system	Cross-platform
Size	54 MB
Available in	17 languages
	[show] **List of languages**
Type	Bibliography manager
License	MIT License
Website	www.jabref.org 🖉

Features [edit]

The application is programmed in Java, and is maintained for Windows, Linux and Mac OS X, it is available free of charge and is actively developed.

Collection [edit]

- Import options for over 15 reference formats.
- Extraction of metadata from PDFs.
- Retrieval of articles and bibliographic information based on ISBN, DOI, PubMed-ID and arXiv-ID.
- Support for many online scientific catalogues like ACM Portal, CiteSeer, CrossRef, DBLP, DOAJ, GVK, Google

Zotero

StArt – UFSCar

State of the Art through Systematic Review

http://lapes.dc.ufscar.br/tools/start_tool

StArt

Systematic Review (SR) is a technique used to search for evidence in scientific literature that is conducted in a formal manner, applying well-defined steps, according to a previously elaborated protocol. As the SR has many steps and activities, its execution is laborious and repetitive. Therefore, the support of a computational tool is essential to improve the quality of its application. Therefore, a tool called StArt (State of the Art through Systematic Review) was developed, which aims to help the researcher, giving support to the application of this technique. The StArt tool has being used by graduate students who have declared its positive support and its advantages in relation to other tools.

Revisão Sistemática (RS) é uma técnica de pesquisa por evidências em literatura científica conduzida de maneira formal, seguindo etapas bem definidas, de acordo com um protocolo previamente elaborado. Como são várias as etapas e atividades de uma RS, sua execução é trabalhosa e repetitiva. Assim, o apoio de uma ferramenta computacional é fundamental para melhorar a qualidade de sua aplicação. Nesse contexto, foi desenvolvida uma ferramenta denominada StArt (State of the Art through Systematic Reviews), que tem como objetivo dar suporte ao pesquisador, apoiando a aplicação dessa técnica. A StArt tem sido usada por alunos de pós-graduação que têm relatado o apoio positivo de seu uso e as vantagens em relação a outras ferramentas.

ASReview

Keyword search → Abstract Screening → Months later → Result

Keyword search → AI-aided abstract → Only hours later → Reproducible Results

https://asreview.nl/#!/about-us

Ferramentas

About

The **Systematic Review Toolbox** is a community-driven, searchable, web-based catalogue of tools that support various tasks within the systematic review and wider evidence synthesis process.

The toolbox aims to help researchers and reviewers find the following:

- Software tools
- Quality assessment / critical appraisal checklists
- Reporting standards
- Guidelines

Users can perform a simple keyword (i.e. Quick) search to locate tools, or a more detailed (i.e. Advanced) search allowing users to select various criteria to find specific types of tools. Users can also suggest new tools to add to the database **here**.

Dr Christopher Marshall developed the toolbox in 2015. You can follow Chris on Twitter at **@drcokefloat**.

http://systematicreviewtools.com/

Não confunda "revisão da literatura" com "revisão sistemática"

Primary · Secondary

https://www.youtube.com/watch?v=WUErib-fXV0

Sci-Hub

the first pirate website in the world to provide mass and public access to tens of millions of research papers

A research paper is a special publication written by scientists to be read by other researchers. Papers are *primary sources* neccessary for research �C for example, they contain detailed description of new results and experiments.

papers in Sci-Hub library:
more than **79,076,928**

At this time the widest possible distribution of research papers, as well as of other scientific or educational sources, is artificially restricted by copyright laws. Such laws effectively slow down the development of science in human society. The Sci-Hub project, running from 5th September 2011, is challenging the status quo. At the moment, Sci-Hub provides access to *hundreds of thousands research papers every day*, effectively bypassing any paywalls and restrictions.

Alexandra Elbakyan

knowledge to all

We fight inequality in knowledge access across the world. The scientific knowledge should be available for every person regardless of their income, social status, geographical location and etc.

no copyright

We advocate for cancellation of **intellectual property**, or copyright laws, for scientific and educational resources.

open access

The **Sci-Hub** project supports **Open Access** movement in science. Research should be published in open access, i.e. be free to read.

In this contribution we describe remains referable to the genus *Brachyplatystoma* coming from Late Miocene beds of Entre Ríos province, Argentina. The specimens represent an important increment on *Brachyplatystoma* diversity, since constitutes the first record for the genus outside Orinoco and Amazon basins.

2. Material and methods

The examined fossil specimens are housed in the Vertebrate Paleontological Collection of the Museo Argentino de Ciencias Naturales "Bernardino Rivadavia", Buenos Aires, Argentina (MACN Pv). Under the same number (MACN Pv 16052) there are included three Weberian apparatus belonging to different individuals.

Dry skeletons of living species belong to the following comparative collections: ANSP, Academy of Natural Sciences of Philadelphia, USA. DUF, Duke University, Vertebrate Collection, Durham, North Carolina, USA. USNM, National Museum of Natural History, Smithsonian Institution, Department of Vertebrate Zoology, Washington D.C. USA. MZUSP, Museu de Zoologia da Universidade de São Paulo, São Paulo, Brazil. *Platynematichthys notatus*, ANSP 178258; *Brachyplatystoma filamentosum*, ANSP 187105, DUF 1052; *Brachyplatystoma capapretum*, MZUSP 53262; *Brachyplatystoma vaillantii*, DUF 1109, DUF 1034 (available at http://catfishbone.ansp.org/Pimelodidae/Brachyplatystoma/vaillantii/dry.skeleton.html); *Brachyplatystoma tigrinum*, ANSP 179236, USNM 280746; *Brachyplatystoma juruense*, ANSP 178514; *Brachyplatystoma platynemum*, ANSP 187321; and *Brachyplatystoma rousseauxi*, DUF 1057.

Osteological nomenclature follows Lundberg and Akama (2005) and osteological traits of the Weberian apparatus follow Lundberg (2005).

3. Geological settings

The material here studied was collected at the end of the 19th and beginning of 20th centuries in the Paraná riverside cliffs near Paraná city, Entre Ríos Province, Argentina (Fig. 1). According to Azpelicueta

Fig. 1. Map showing distribution of living species of genus *Brachyplatystoma* and fossil localities. 1, *Brachyplatystoma* cf. *B. vaillantii*; Alta Guajira Peninsula, northern Colombia; Upper Castilletes Formation, Early Pliocene (Aguilera et al., 2013). 2, *Brachyplatystoma* cf. *B. vaillantii*; North Corralito, Urumaco trough, Northwestern Venezuela; Urumaco Formation, Late Miocene (Aguilera et al., 2013). 3, *Brachyplatystoma promagdalena*; La Venta, Colombia; La Venta Formation, Late Miocene (Lundberg, 2005). 4, *Brachyplatystoma elbakyani*; Paraná city, Entre Ríos province, Argentina; Paraná Formation, Late Miocene.

Brachyplatystoma filamentosum, conhecido popularmente como piraíba, piratinga e piranambu

Who's downloading pirated papers?
EVERYONE

In rich and poor countries, researchers turn to the Sci-Hub website.

https://www.sciencemag.org/news/2016/04/whos-downloading-pirated-papers-everyone

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Preparação de um trabalho de pesquisa:
- Método
- Resumo
- Introdução
- Conclusões

Sugestão de estrutura

→ Defesa de qualificação
→ Defesa de tese/dissertação

Monografia de qualificação

Pré-textuais

Título
Resumo (palavras-chave)
Abstract (keywords)

Textuais

1) Introdução.
2) Trabalhos relacionados.
   (Referencial teórico)
3) Objetivos e relevância.
4) Proposta (solução).
5) Cronograma.
6) Considerações finais.

Pós-textuais

Referências

Monografia de tese/dissertação

Título
Resumo (palavras-chave)
Abstract (keywords)
Sumário
Lista de figuras, tabelas, abreviaturas

1) Introdução.
2) Trabalhos relacionados.
   (Referencial teórico)
3) Objetivos e relevância.
4) Proposta (solução).
5) Experimentos (resultados).
6) Conclusão.

Referências
Anexos

Sobre o método de pesquisa

Slides baseados no livro:
Wazlawick, R., 2014. Metodologia de Pesquisa para Ciência da Computação, 2ª Edição. Elsevier Brasil.

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Método de pesquisa

- É uma **sequência de passos** necessários para demonstrar que o objetivo proposta **foi atingido**.
  - → Veja o método como o caminho a ser seguido para chegar no objetivo.

- O método deverá indicar (depende do tipo de trabalho):
  - Se modelos teóricos serão construídos.
  - Se protótipos serão desenvolvidos.
  - Quais experimentos serão realizados.

Método de pesquisa

Método de pesquisa

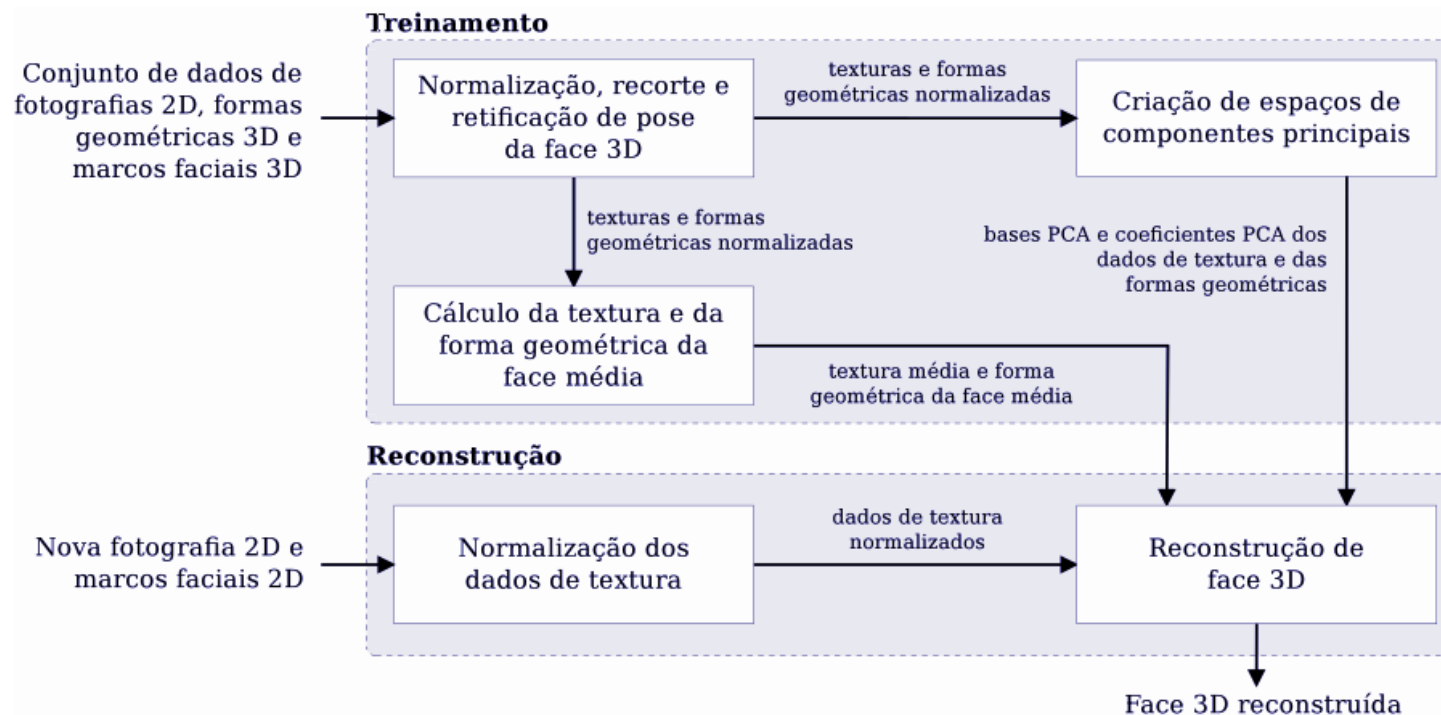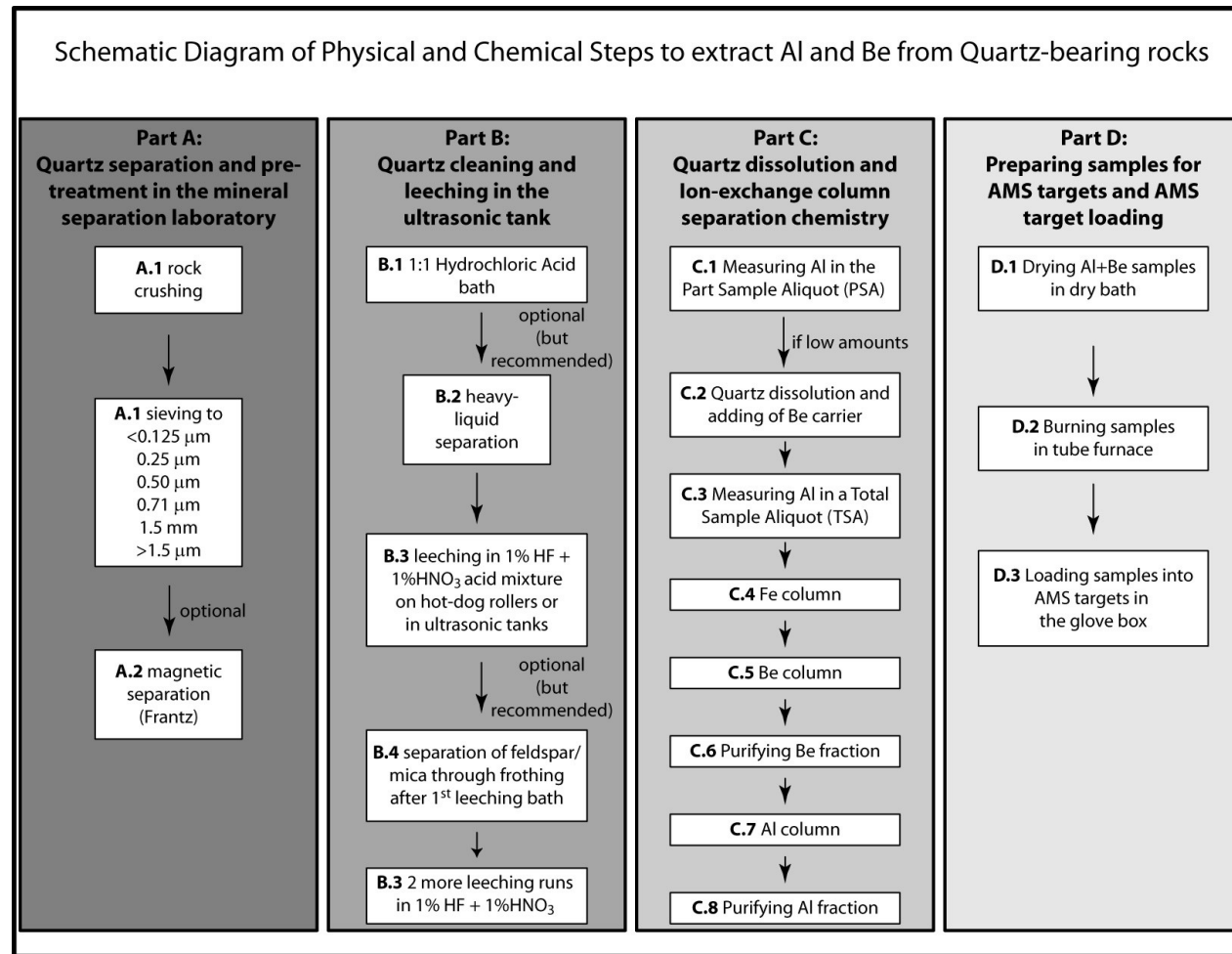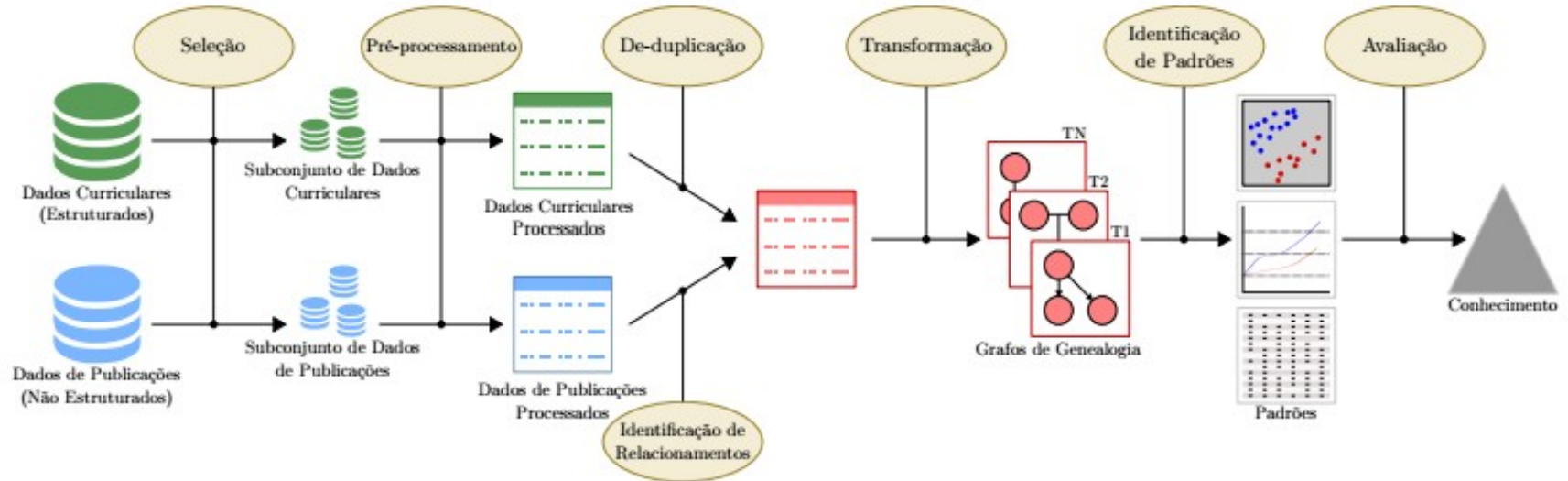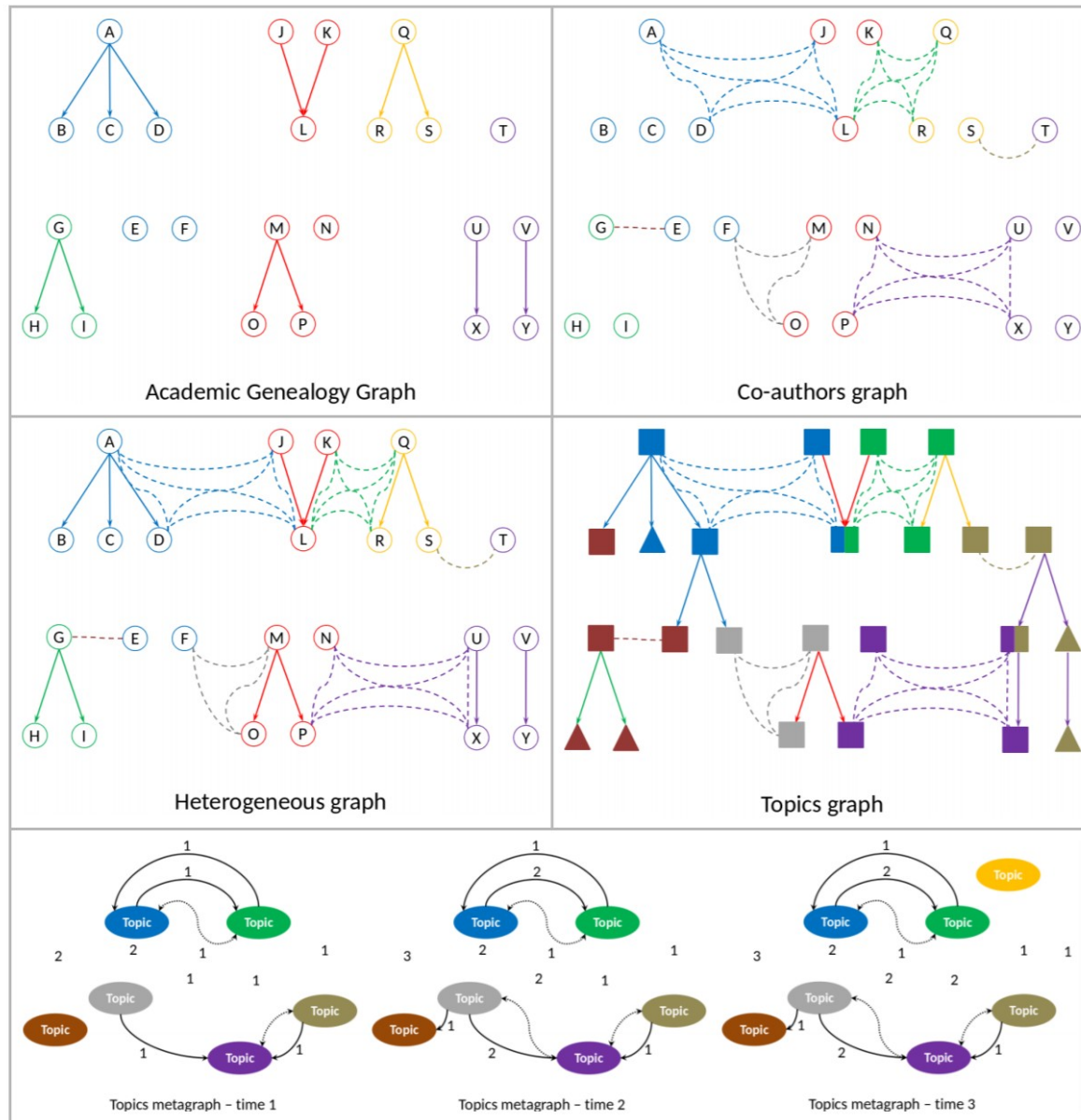Schematic Diagram of Physical and Chemical Steps to extract Al and Be from Quartz-bearing rocks

Part A:
Quartz separation and pre-treatment in the mineral separation laboratory

- **A.1** rock crushing
- **A.1** sieving to <0.125 μm, 0.25 μm, 0.50 μm, 0.71 μm, 1.5 mm, >1.5 μm
- *optional*
- **A.2** magnetic separation (Frantz)

Part B:
Quartz cleaning and leeching in the ultrasonic tank

- **B.1** 1:1 Hydrochloric Acid bath
- *optional (but recommended)*
- **B.2** heavy-liquid separation
- **B.3** leeching in 1% HF + 1%HNO$_3$ acid mixture on hot-dog rollers or in ultrasonic tanks
- *optional (but recommended)*
- **B.4** separation of feldspar/mica through frothing after 1st leeching bath
- **B.3** 2 more leeching runs in 1% HF + 1%HNO$_3$

Part C:
Quartz dissolution and Ion-exchange column separation chemistry

- **C.1** Measuring Al in the Part Sample Aliquot (PSA)
- *if low amounts*
- **C.2** Quartz dissolution and adding of Be carrier
- **C.3** Measuring Al in a Total Sample Aliquot (TSA)
- **C.4** Fe column
- **C.5** Be column
- **C.6** Purifying Be fraction
- **C.7** Al column
- **C.8** Purifying Al fraction

Part D:
Preparing samples for AMS targets and AMS target loading

- **D.1** Drying Al+Be samples in dry bath
- **D.2** Burning samples in tube furnace
- **D.3** Loading samples into AMS targets in the glove box

http://www.geog.ucsb.edu/~bodo/data.php?pg=data

Método de pesquisa

Conceptual illustration of the data structures considered in the different steps of the project.

Resumo

Resumo

- Não é um *trailer de um filme*. Não precisa criar suspense...

- Um resumo em um documento pode focar mais em:
  - **Qualificação:** O objetivo e resultados esperados.
  - **Defesa:** O objetivo e conclusões.

- **Poucas** palavras. **Deve ser fiel**.

- Pode ser escrito após o objetivo e hipótese. Não necessáriamente ao final do trabalho.

- Tente não colocar citações / referências / todos os achados.

Poucas palavras (~250)
Consegue resumir anos de trabalho em poucas palavras?

Resumo – Mitos

- Deve ser longo (mais de uma página)

- Não deve ter mais do que UM parágrafo.

- Não deve conter valores numéricos de resultados.

- Deve conter citações ou tabelas.
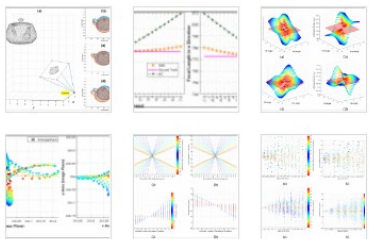 Nada facilita a vida do leitor.

Resumo - Evite

- "… os resultados são discutidos."

- "… as conclusões principais do trabalho são apresentadas."

- "Este documento apresenta o trabalho de mestrado da área de Computação…"

- "… contou com a orientação de ..."

- "… contou com o apoio da empresa ..."

Figures (8)

Show all figures ⌄

Tables (3)

Simplified Active Calibration ☆ ☆☆

Mehdi Faraji ✉, Anup Basu ⚲ ✉

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Highlights

- We propose a closed-form camera calibration: Simplified Active Calibration (SAC).

- SAC uses only three pairs of images captured by active camera movements.

- SAC can estimate focal length using only one point correspondence.

- SAC utilizes the degenerate motion of a camera to estimate parameters.

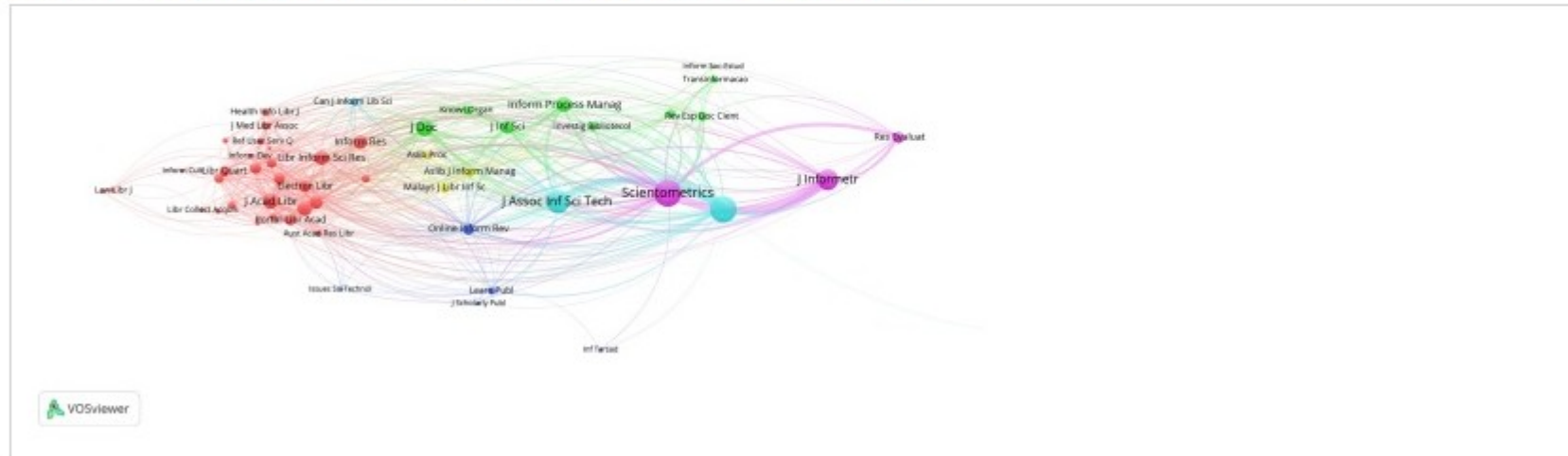- SAC eliminates the need for using known patterns or wands.

Abstract

We present a new mathematical formulation to estimate the intrinsic parameters of a camera in active or robotic platforms. We show that the focal lengths can be estimated using only one point correspondence that relates images taken before and after a degenerate rotation of the camera. The estimated focal lengths are then treated as known parameters to obtain a linear set of equations to calculate the principal point. Assuming that the principal point is close to the image center, the accuracy of the linear equations are increased by integrating the image center into the formulation. We extensively evaluate the formulations on a simulated camera, 3D scenes and real-world images. Our error analysis over simulated and real images indicates that the proposed Simplified Active Calibration method estimates the parameters of a camera with low error rates that can be used as an initial guess for further non-linear refinement procedures. Simplified Active Calibration can be employed in real-time environments for automatic calibrations given the proposed closed-form solutions.

[Construction of a pragmatic base line for journal classifications and maps based on aggregated journal-journal citation relations](#) Original Research Article
Pages 902-918
Loet Leydesdorff, Lutz Bornmann, Ping Zhou
▷ Abstract | ▽ Close graphical abstract | ▷ Research highlights | 🔴 PDF (4773 K)

Figures (14)

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Tables (2)

Hand pose estimation and tracking in real and virtual interaction:A review ☆

Ammar Ahmad, Cyrille Migniot ♀ ✉, Albert Dipanda

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Highlights

- Reviewing recent trends in markerless vision-based 3D hand motion tracking

- Proposing a new taxonomy based on hand-object interaction constraints

- Distinguishing between tracking in isolation and in real/virtual interaction

- Studying some datasets in the context of hand-object interaction

Abstract

Vision-based 3D hand tracking is a key and popular component for interaction studies in a broad range of domains such as virtual reality (VR), augmented reality (AR) and natural human-computer interaction (HCI). While this research field has been well studied in the last decades, most approaches have considered the human hand in isolation and not in action or in interaction with the surrounding environment. Even the common collaborative and strong interactions with the other hand have been ignored. However, many of today's computer applications require more and more hand-object interactions. Furthermore, employing contextual information about the object in the hand (e.g. the shape, the texture, and the pose) can remarkably constrain the tracking problem. The most studied contextual constraints involve interaction with real objects and not with virtual objects which is still a very big challenge. The goal of this survey is to develop an up-to-date taxonomy of the state-of-the-art vision-based hand pose estimation and tracking methods with a new classification scheme: hand-object interaction constraints. This taxonomy allows us to examine the strengths and weaknesses of the current state of the art and to highlight future trends in the domain.

Graphical Abstract

Download : Download high-res image (126KB)   Download : Download full-size image

Antibiotic Treatment and Survival of Nursing Home Patients With Lower Respiratory Tract Infection: A Cross-National Analysis

Robin L. Kruse, PhD[1], David R. Mehr, MD, MS[1], Jenny T. van der Steen, PhD[2,3,4], Marcel E. Ooms, MD, PhD[2,3], Richard W. Madsen, PhD[5], Ashley K. Sherman, MA[5], Ralph B. D'Agostino, PhD[6], Gerrit van der Wal, MD, PhD[3,4] and Miel W. Ribbe, MD, PhD[2,3]

+ Author Affiliations

CORRESPONDING AUTHOR: Robin L. Kruse, PhD, Department of Family and Community Medicine, University of Missouri-Columbia School of Medicine, Columbia, MO 65212, kruser@health.missouri.edu

Titulação acadêmica?

Abstract

PURPOSE Although lower respiratory tract infections are a leading cause of death in frail elderly patients, few studies have compared treatments and outcomes. We assessed the effects of different antibiotic treatment strategies on survival of elderly nursing home residents with lower respiratory tract infections in the United States and the Netherlands, where treatment approaches are quite different.
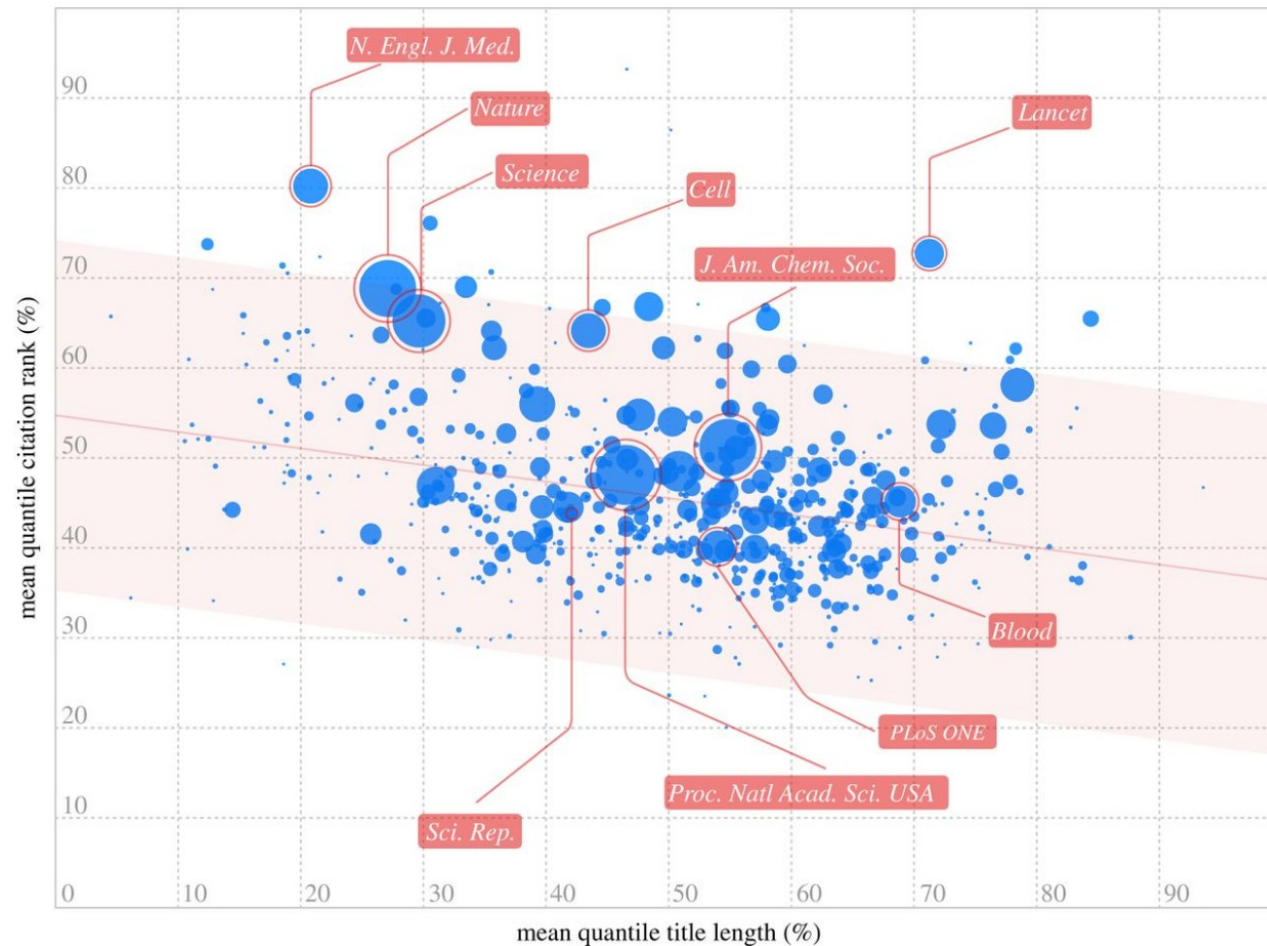
METHODS We combined data from 2 prospective cohort studies of lower respiratory tract infections conducted in 36 nursing homes in the United States and 61 in the Netherlands. We included residents whose infections were treated with antibiotics: 806 in the United States and 415 in the Netherlands. Outcome measures were 1-month and 3-month mortality. We used logistic regression to adjust for differing illness severity.

RESULTS Dutch residents had higher mortality than US residents (28.1% vs 15.1% at 1 month, respectively; P <.001). After adjusting for illness severity with logistic regression, the differences between the Dutch and US populations were not significant (odds ratio 1.34; 95% confidence interval, 0.94–1.90). Predicted mortality was overestimated for more severely ill US residents at 1 month but not at 3 months. No antibiotic regimen was consistently associated with increased or decreased mortality.

CONCLUSION Despite differences in illness severity and treatment, adjusted mortality did not differ between the 2 countries. Although we cannot exclude a short-term survival benefit from more aggressive treatment in the United States, differences in baseline health appear prognostically more important than the type of antibiotic treatment.

Teses/dissertações com **título curto** <u>são mais fáceis de ler e compreender</u>?

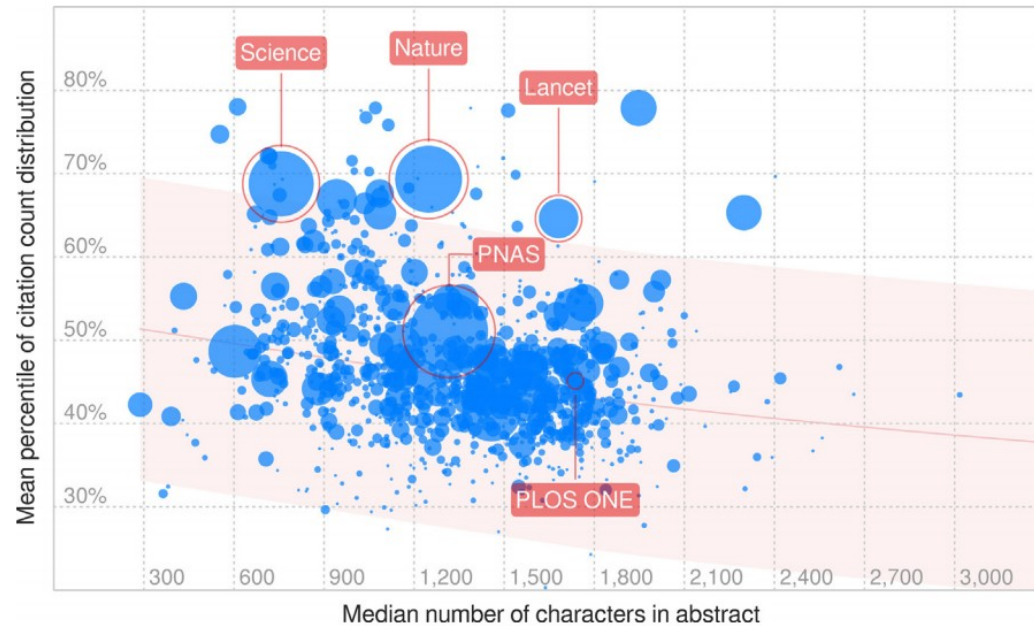Letchford, A., Moat, H.S. and Preis, T., 2015. **The advantage of short paper titles.** Royal Society open science, 2(8), p.150266.

- "The role of particle morphology in interfacial energy transfer in CDSE/CDS heterostructure nanocrystals"

  28 citações

- "Insects betray themselves in nature to predators by rapid isomerization of green leaf volatiles,"

  67 citações

- "Quantum walks of correlated photons"

  253 citações

- "A draft sequence of the neandertal genome"

  700 citações

Teses/dissertações com **resumo curto** são mais fáceis de ler e compreender?

Considerados somente os ~1% artigos mais citados na WoS
Veja como uma evidência… ainda há muito a ser discutido!

A qualidade do trabalho é o mais importante: Apresentar sólidos objetivos e argumentos/provas.

Quantidade não é qualidade.

The advantage of simple paper abstracts

Adrian Letchford , Tobias Preis, Helen Susannah Moat

Data Science Lab, Behavioural Science, Warwick Business School, University of Warwick, CV4 7AL, Coventry, UK

CrossMark

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Open Access

Highlights

- We investigate whether or not the style of a scientific paper's abstract bears any relation to the number of times that paper is cited.
- We find that papers whose abstracts contain more frequently used words tend to receive slightly more citations.
- We find that journals which publish papers whose abstracts are shorter and contain more frequently used words receive slightly more citations per paper.

Abstract

Each year, researchers publish an immense number of scientific papers. While some receive many citations, others receive none. Here we investigate whether any of this variance can be explained by the choice of words in a paper's abstract. We find that doubling the word frequency of an average abstract increases citations by 0.70%. We also find that journals which publish papers whose abstracts are shorter and contain more frequently used words receive slightly more citations per paper. Specifically, adding a 5 letter word to an abstract decreases the number of citations by 0.02%. These results are consistent with the hypothesis that the style in which a paper's abstract is written bears some relation to its scientific impact.

Keywords

Citation analysis; Scientific writing; Computational social science; Science of science

A revista Science admite abstract de até 125 palavras

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ELSEVIER

Journal of Number Theory
Volume 146, January 2015, Pages 187–309
Special Issue in Honor of Steve Rallis

Small representations, string instantons, and Fourier modes of Eisenstein series ☆ ☆☆

Dedicated to the memory of Steve Rallis

Michael B. Green[a], ✉, Stephen D. Miller[b], ▲ ⋅ ✉, Pierre Vanhove[c, d, e], ✉

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http://dx.doi.org/10.1016/j.jnt.2013.05.018   Get rights and content

Abstract

Text

This paper concerns some novel features of maximal parabolic Eisenstein series at certain special values of their analytic parameter, s. These series arise as coefficients in the R^4 and $\partial^4 R^4$ interactions in the low energy expansion of the scattering amplitudes in maximally supersymmetric string theory reduced to $D = 10 - d$ dimensions on a torus, T^d ($0 \leqslant d \leqslant 7$). For each d these amplitudes are automorphic functions on the rank $d+1$ symmetry group E_{d+1}. Of particular significance is the orbit content of the Fourier modes of these series when expanded in three different parabolic subgroups, corresponding to certain limits of string theory. This is of interest in the classification of a variety of instantons that correspond to minimal or "next-to-minimal" BPS orbits. In the limit of decompactification from D to $D+1$ dimensions many such instantons are related to charged $\frac{1}{2}$-BPS or $\frac{1}{4}$-BPS black holes with euclidean world-lines wrapped around the large dimension. In a different limit the instantons give non-perturbative corrections to string perturbation theory, while in a third limit they describe non-perturbative contributions in eleven-dimensional supergravity. A proof is given that these three distinct Fourier expansions have certain vanishing coefficients that are expected from string theory. In particular, the Eisenstein series for these special values of s have markedly

This article belongs to a special issue

Special Issue in Honor of Steve Rallis
Edited By James Cogdell, Hervé Jacquet, Dihua Jiang and Stephen Kudla

Other articles from this special issue

Mod 2 homology for GL(4) and Galois representati...
Avner Ash, , Paul E. Gunnells, , Mark McConnell, more

A kernel formula for the action of the Weyl elemen...
Ehud Moshe Baruch, , Orr Beit-Aharon, more

Whittaker functions and Demazure operators
Ben Brubaker, , Daniel Bump, , Anthony Licata, more
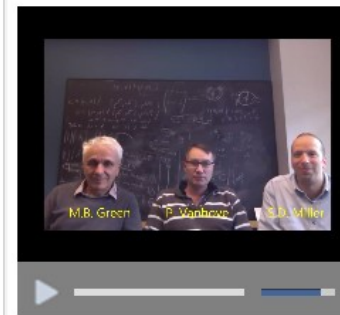
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http://www.sciencedirect.com/science/article/pii/S0022314X13002424

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On irrationality exponents of generalized continued fractions ☆

Jaroslav Hančl [1], Kalle Leppälä, Tapani Matala-aho ✉, Topi Törmä

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Abstract

Text

We study how the asymptotic irrationality exponent of a given generalized continued fraction

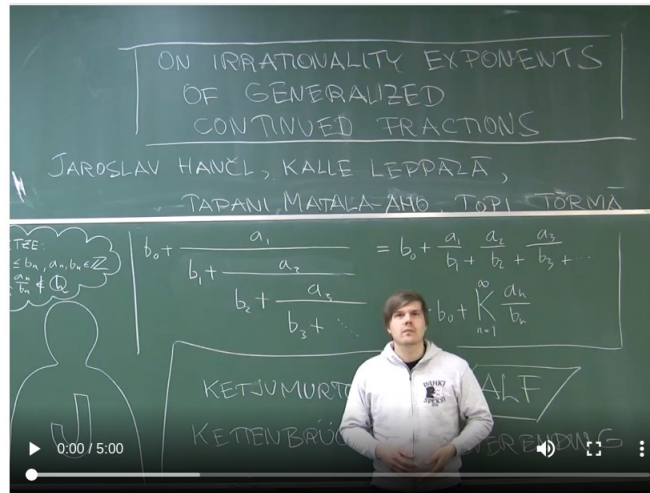$$\overset{\infty}{\underset{n=1}{\mathrm{K}}} \frac{a_n}{b_n}, \quad a_n, b_n \in \mathbb{Z}^+,$$

behaves as a function of growth properties of partial coefficient sequences (a_n) and (b_n).

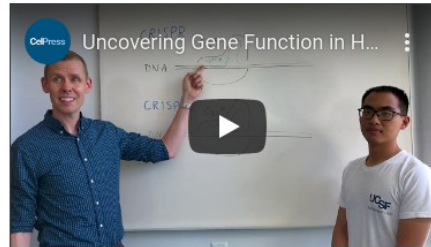### Video

For a video summary of this paper, please visit http://youtu.be/u5B2ItY9v28.

Author Video

Download : **Download video (16MB)**

https://www.sciencedirect.com/science/article/pii/S0022314X15000049

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CellPress

Showing: 1 - 10 of 456   **1** 2 3 4 5 6 7 8 9 10 11 ... Next >
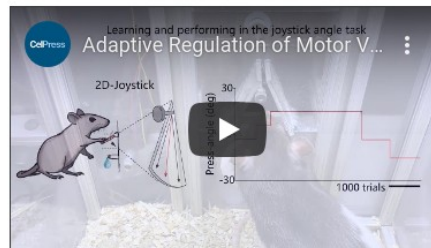
October 2019

Uncovering gene function in human neurons using CRISPR

Tian, Gachechiladze, Ludwig, et al. present a CRISPR interference-based platform for genetic screens in human iPSC-derived neurons. This platform enables systematic elucidation of gene function in human neurons and reveals neuron-specific roles of genes for survival, transcriptomic states, and morphology.

View on YouTube | Read associated article

Adaptive Regulation of Motor Variability

A video summary of our article on adaptive regulation of motor variability.

View on YouTube | Read associated article

A Secret of the Iridescent Comb Jelly

Comb jellies or ctenophores are one of the basal metazoan species, and their phylogenetic position is a recent big topic in biology. The comb plates of ctenophores are a primary characteristic of this animal and attract many people with their beautiful iridescent color. Now a molecule to characterize the comb plate has been first explored.

View on YouTube | Read associated article

Heather Nectar as Bumblebee Medicine

Naturally occurring chemical compounds in nectar could help pollinators against threats posed by diseases. Koch et al. elucidate the first mechanism that explains how nectar secondary metabolites prevent infections by the common bumblebee parasite Crithidia bombi. Exposure to callunene, a megastigmene from heather nectar, results in the loss of the parasite flagellum, leading to reduced infectivity. Heathland declines could reduce access to this natural antimicrobial for bumblebees.

View on YouTube | Read associated article

Cross-Cultural Studies of Musical Pitch Perception

Lead author Nori Jacoby and PI Josh McDermott discuss their findings on pitch perception in western cultures as compared to an indigenous society in Bolivia with limited western music exposure to see if there are cultural differences.

View on YouTube | Read associated article

Video abstracts, the latest trend in scientific publishing

Will "publish or perish" soon include "video or vanish"?

By JACOB BERKOWITZ | February 6, 2013

💬 5 Comments | Share 🐦 f 🔴 in

"Video abstracts grew out of the realization that the Internet allows us to communicate with each other in ways that were never before possible," says John Kuemmerle, online editor of the journal *Clinical Gastroenterology and Hepatology*. "It allows us to personalize our papers in ways that were never before possible"

A comuninação dos resultados é melhorada?

PYR101: George Whitesides - Impact of video on scientific articles

https://www.youtube.com/watch?v=HboNzrq0MKE

Sobre a Introdução

Introdução

- Apresenta de forma mais ou menos detalhada:
    - O tema (fazendo uma descrição geral da área)
    - O problema de pesquisa (para entender o contexto)

- **Pode inovar**, mas descreva de forma clara:
    - Justificativa.
    - Objetivo geral.
    - Hipótese (ressalte sua novidade).
    - Pode apresentar as melhores conclusões do trabalho.

- Evite introduções muito longas. Evite histórias longas. **Seja completo mais sucinto**. Foco!
    - → Uma introdução não é uma extensa revisão bibliográfica.

Introdução

- Existe extensa revisão, no estado-da-arte, sobre o tema? **Você pretende refazer a revisão da literatura na introdução?**

- Incluir apenas as definições necessárias.

- **Não há regra.** Pode usar a seguinte estrutura:
    - Contextualização / Fundamentação
    - Objetivos (pode ir em qualquer lugar)
    - Justificativa (pode considerar como pergunta)
    - As melhores conclusões / contribuições
    "Neste trabalho demonstramos que … "

Introdução

- Não precisa apresentar os demais capítulos.

- **Não há limite** sobre o número de páginas.

- Não precisa **repetir** as mesmas **palavras** do resumo (questão de elegância).

1.3 Organização do trabalho

No Capítulo 2 são descritos os métodos de reconstrução facial 3D existentes. Foi criada uma classificação dos métodos considerando como critério o tipo de informação requerida para a reconstrução. Não foram considerados os critérios sobre complexidade espacial nem temporal pois estas informações não foram indicadas em todos os métodos tratados.

No Capítulo 3 são apresentados os principais bancos de dados de expressões faciais 3D existentes na literatura. Além disso, é relatada a criação de um novo conjunto de dados de faces 3D, assim como o protocolo e o equipamento usado para sua criação. Também são descritos os processos considerados no pré-processamento para a normalização semi-automática do conjunto de dados completo.

No Capítulo 4 é detalhado o método proposto para a reconstrução facial 3D. Também é descrita uma medida de acurácia considerada para avaliar a qualidade da reconstrução facial. Esta medida está baseada na projeção do modelo facial reconstruído sobre o modelo real de face 3D adquirida por um escaner.
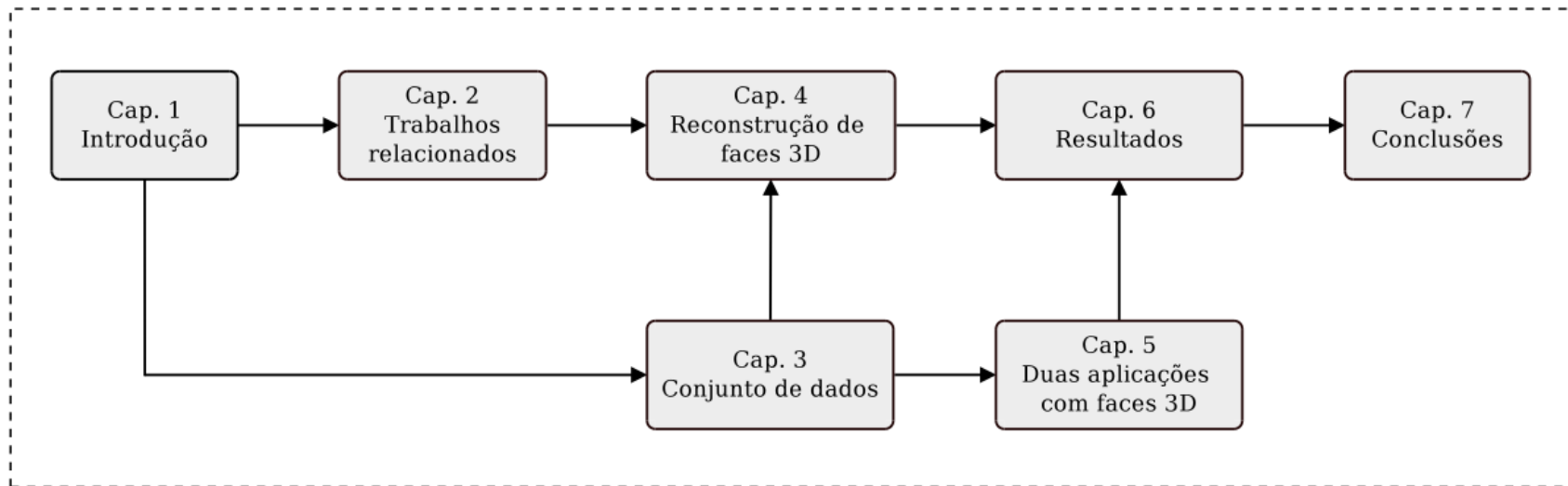
No Capítulo 5 são mostradas as aplicações correspondentes à transmissão de expressões faciais e a caricaturização de faces 3D. Para este fim, foi modificado o método de caricaturização de faces 2D, proposto por Chen et al. (2009), baseado em estimação das proporções das elementos faciais 3D.

No Capítulo 6 apresentam-se os resultados obtidos na reconstrução facial. Discutimos três tipos de experimentos de reconstrução. Também são apresentados resultados correspondentes à transferência de expressões e caricaturização de faces 3D. Finalmente, no Capítulo 7 são discutidas algumas conclusões do trabalho e apresentadas sugestões para pesquisas futuras.

Em anexos constam: uma descrição técnica da representação de formas faciais 3D em arquivos de formato poligonal (Apêndice A); e uma lista das publicações elaboradas durante o período do doutorado (Apêndice B). O esquema da Figura 1.1 esclarece como estão organizados os capítulos da tese.

Introdução

Alguns trabalhos apresentam uma figura com a organização dos capítulos do trabalho.

Introdução

Antes de redigir sua introdução:

- Leia a introdução de 2 artigos publicados em revistas internacionais de sua área.

- Leia a introdução de 2 dissertações/teses selecionadas no **Concurso de Teses e Dissertações da SBC**.

Faça uma leitura crítica. Veja as abordagens e inove!

Sobre o capítulo de conclusões

Conclusões

- Não deixe para os últimos dias da escrita: **A conclusão é a essencia do trabalho (Volpato, 2016)**.

- **Veja a hipótese** e disserte brevemente sobre como os resultados obtivos foram verificados (ou não).

- **Veja os objetivos** (geral e específicos) e comente sobre como foram atingido com a sua proposta.

  Não precisa discutir cada um dos objetivos.

- Pode colocar uma Seção com (Seja auto-crítico.):
  - As **limitações do trabalho**.
  - As **contribuições do trabalho.**
  - As **recomendações para trabalhos futuros**.

Conclusões

- Não se concentre no local (ou ferramenta ou amostras ou *datasets*) e sim em **prováveis generalizações**.

- **Pode relacionar** suas conclusões com evidências da literatura.

- **A qualidade do trabalho é medida pela qualidade das conclusões** (Volpato, 2016).

- As conclusões devem ser suportadas pelos seus dados ou por análise da literatura.

Conclusão

Antes de redigir sua conclusão:

- Leia a conclusão de 2 artigos publicados em revistas internacionais de sua área.

- Leia a conclusão de 2 dissertações/teses selecionadas no Concurso de Teses e Dissertações da SBC.

Faça uma leitura crítica. Veja as abordagens e inove!

Sobre os relatórios de acompanhamento

2   Sobre o tempo de defesa (em minutos)

- Apresentação do aluno: 44:15,47
- Participação do avaliador 1: 10:22,14
- Participação do avaliador 2: 08:05,91
- Participação do avaliador 3: 04:32,04
- Participação do avaliador 4: 07:56,96
- Participação do avaliador 5: 02:54,04
- Tempo total da defesa: 1h25:00,00

2   Sobre o tempo de defesa (em minutos)

- Apresentação do aluno: 120 minutos (Os participantes fizeram perguntas durante a apresentação)
- Participação do avaliador 1: 20 minutos
- Participação do avaliador 2: 10 minutos
- Tempo total da defesa: 150 minutos