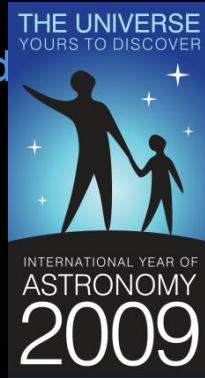


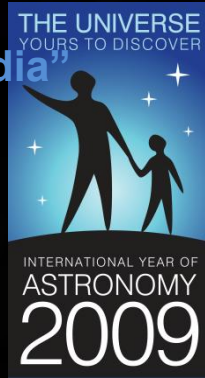
ESO - Garching bei Munchen - February, 11,
2009



Astronomy in the newspapers: Methodology and some results

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1. Intro

- Public understanding of science & technology *sensu lato*, namely, astronomy and space sciences;
- Understand and contextualize astronomy and space sciences in the media;
- Tradition of international researches about S & T → newspapers;
- Source and representative of the whole media in science and technology issues;



- As social fact, mediated science → contextualized and chronologically organized research;
- Qualitative and quantitative analysis of articles concerning astronomy/ space sciences issues → newspapers;
- IYA2009 in newspapers: December 2008 → January 2010;

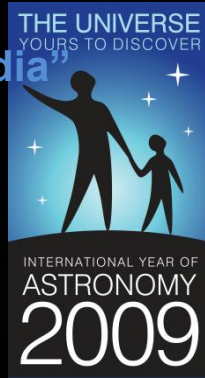




2. Methodology

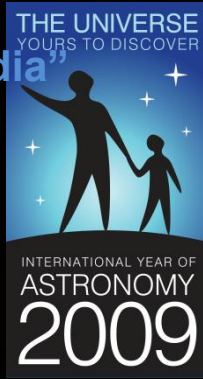
- Exhaustive and systematic gathering → longitudinal section of a newspaper archive;
- Most important, nationally sold, daily newspapers;





- 2 newspaper titles (1 "quality" and 1 "popular" newspapers);
- Definitions:
 - . "Popular" → their contents are soft, less profound and mainly sensationalist, targeting to less educated and less demanding publics;
 - . "Quality" → their contents are profounder and sober, mainly about politics and economics, targeting higher educated publics and cultural and power elites.



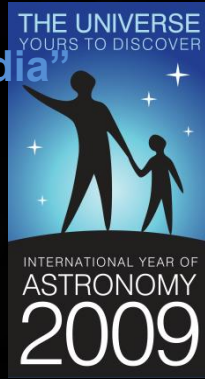


- Selection procedure:
 - . SPSS, Excel → working-days, between 1.12. 2008 and 31.01.2010,
 - .SPSS, Excel select, randomly, editions of 5 publishing days, per week;

- Analysis of the whole edition;

- Analysis → SPSS or Excel;

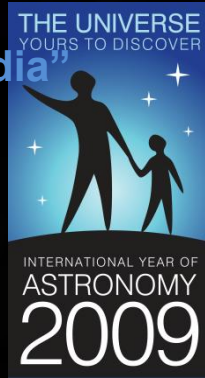




4. Team

- Each country should work with 1 or 2 social scientists – collect and analyze the articles;
- 2010 – Final report/book with the general evaluation

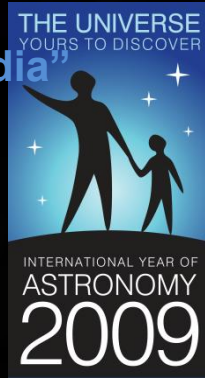




5. Analysis Unit and Corpus

- Analysis unit → the texts, illustrations or sets made by texts or texts and illustrations, that constitute by themselves an unit feasible to be clearly limited and that constitute an object of study itself.
- Analysis *Corpus* → December 2008 to January 2010;





6. Codebook

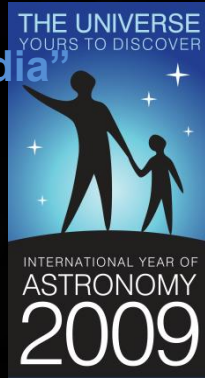
- Analysis → consider only the “manifest” content of the analysis unit. The coder shouldn't use his general knowledge about issues to presuppose informative elements not explicitly referred;
- Analysis Corpus within the edition → all articles concerning astronomy/ space sciences issues;



7. Dimensions

- . Characterization;
- . Scientific contents;
- . Actors;
- . Scientific / IYA2009 events;
- . Locations;
- . Sources;
- . News Play;





- Characterization:

. **Type:** according to the Correia (2006) definition, the newspapers should be classified as **Popular** or **Quality**;

. **Day:** the **day** when the newspaper was published (ex: 11;

. **Month:** the **month** when the newspaper was published (ex: February);

. **Year:** the **year** when the newspaper was published (ex: 2009);

. **Newspaper title:** the **name** of the newspaper (ex: Libération);

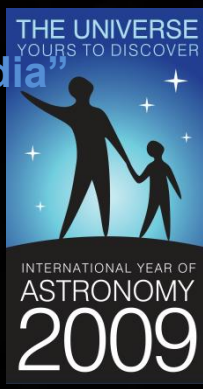


ESO/ ESA /IAU/Excellence Cluster 'Universe' Astronomy Communication Seminars "A method to evaluate astronomy in the media"

. **Article title:** the title of the article. By title it should be understood the sentence written with bigger letters;

. **Location:** If the article is on the upper half or in the lower half of the newspapers page. Although the article might be, mainly, in the lower half of the page, if the top of the article is in the upper half, it should be considered as an article in the upper half of the page;





. **Main illustration content:** Illustration content can be classified like: people, planets, stars, galaxies, nebulas, spaceships, satellites, telescopes, landscapes, buildings, symbols or other illustration contents. If there are several different contents in the illustration, it should be considered the **bigger one**;

Público 2008 As escolhas do Ipsilon

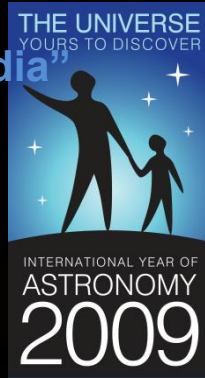
Governo nacionalizou empresa suspeita de falência fraudulenta

Harold Pinter Morreu "um dos maiores poetas do teatro"

Sócrates pede coragem no combate à crise

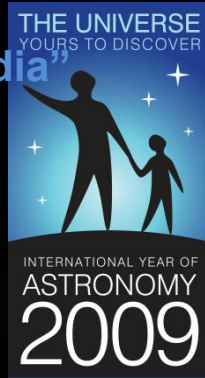
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- Scientific contents:

- . **Scientist(s)/ expert(s) quotations:** if there is any scientist/expert quotation, choose **yes**;
- . **Theory mention:** if the article makes any mention to the theory, choose **yes**;
- . **Methodology mention:** if the article makes any mention to the methodology, choose **yes**;
- . **Technical language/ jargon:** if the article uses any technical language/ jargon, choose **yes**;
- . **Bibliography:** if the article makes any reference to bibliography, choose **yes**;
- . **Data/results presentation:** in the article shows any research data or results, choose **yes**;
- . **Scientist(s)/ expert(s) name(s):** if the article expresses the name of any scientist/expert, choose **yes**;



. **Scientific Index:** its an Index build to evaluate "how scientific" its an article. This Index its composed by expected features in a scientific article (scientists quotations, theory, method, technical language/ jargon, bibliographic references, data and results, scientists names);

- **Actors:**

. **Main actor type:** If the article has more than one actor, it should be considered only the **most important**. Actors can be classified like: man on the street, scientist/ expert, authority, worker, celebrity, consumer, national community, international community, Mankind, NGO, politics/ political parties, State departments, defense (military), European Union, IAU, other astronomy societies, other scientific institutions, government or other actors;

- Scientific events:

. **Main scientific event:** It should be chosen the predominant scientific event. Events can be classified like: astronomy in general, IYA2009 National project, IYA2009 International project or others;

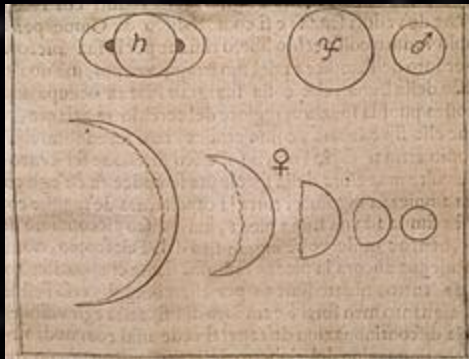
. **Scientific areas:** it should be chosen the predominant scientific area. Areas can be classified like: astronomy in general, astronomy communication, astronomy education, solar system exploration, stellar astrophysics, galactic anthropology, extragalactic astronomy, X-ray astronomy, infrared astronomy, radio astronomy, instrumentation;



- Location:

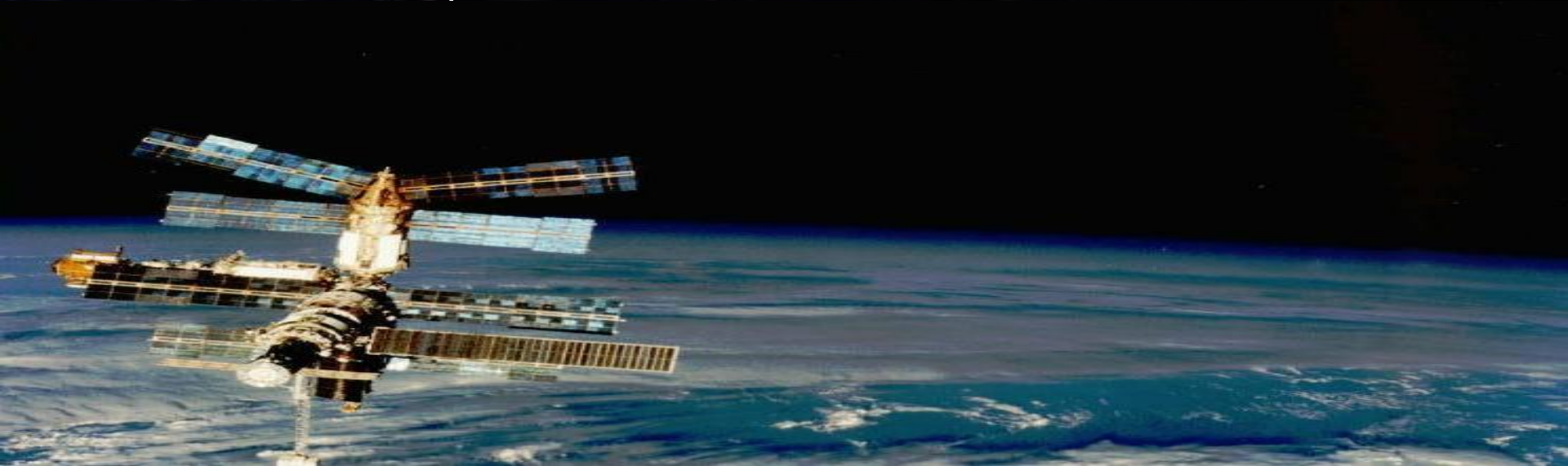
. **Location (big spaces):** choose from the list, one of the locations where the scientific event happens or the location of the institution involved in the event . The **big spaces** locations are: European Union, other European countries, North America, Central and South America, Asia, Africa, Australia, Antarctic, Arctic;

. **Location (country):** write the name of the **country where** the scientific event happens or the country of the institution involved in the event ;



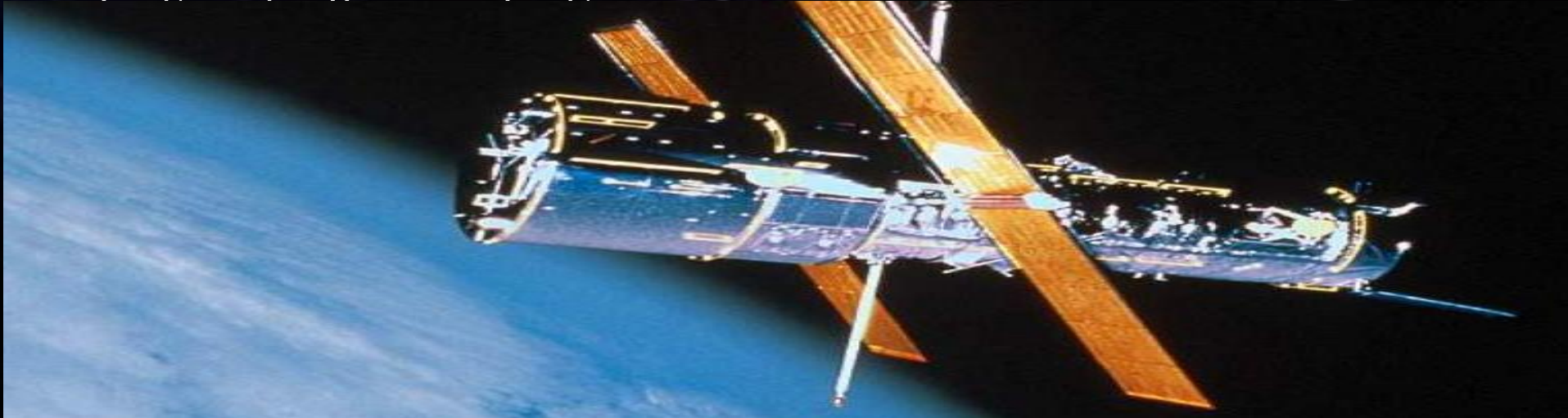
- Source :

. **Information source:** it can be chosen different information sources. Information sources can be: national news wire service, foreign news wire service, other national newspapers, foreign newspapers, national scientific magazines, foreign scientific magazines, NGO, scientific institutions, scientists, public enterprises, private enterprises, scientific/technical reports, books, national IYA2009 coordination, global IYA2009 coordination, the periodical itself, without information or others.



- News play:

. **Budd score:** this variable gives a news play measure, allowing to understand the highlight of the article within the newspaper context. The higher the Budd score, the higher the news play. The Budd score its composed by the combination of a few features: highlight on first page, location on prominent page, location on page upper half, have illustrations, title dimension above the average. The Budd score can be classified as: very low news play, low news play, average news play, high news play, very high news play;





8. A Few Results from a on-going research

8.1. Intro

- Qualitative and quantitative analysis of articles concerning astronomy/ space sciences issues → newspaper "A Capital";
- 1976 → 1999;
- Work in progress;
- "popular" → their contents are soft, less profound and mainly sensationalist, targeting to less educated and less demanding publics;

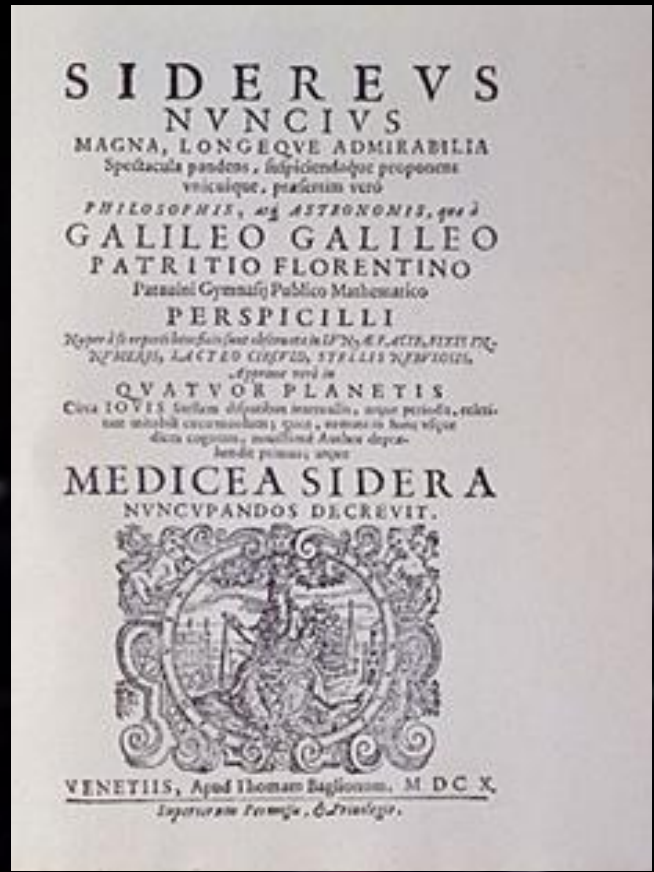




- "A Capital" was one of the most important nationally sold Portuguese newspapers;
- SPSS → working-days, between 1.01.1976 and 31.12.1999, excluding week-ends and permanent holydays;
- SPSS selected, randomly, editions of 2 publishing days, per month;
- Analysis of the whole edition and the position of the article in it;

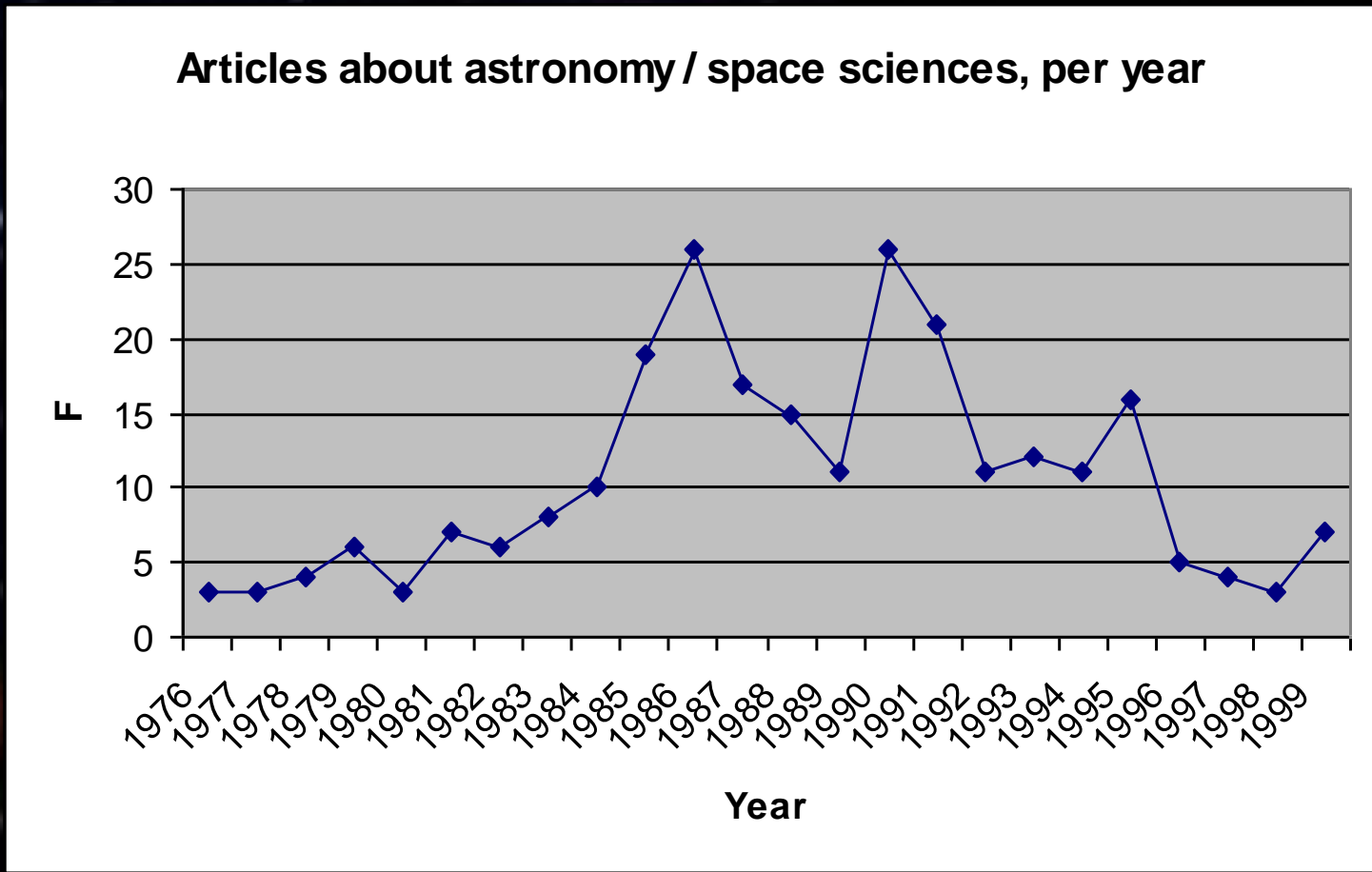
8.2. Outputs

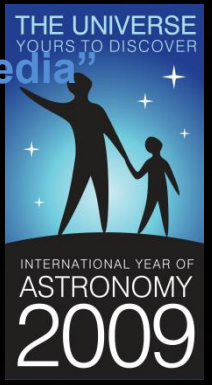
- Articles:
 - . 1971 – Science and Technology
 - . 254 – Astronomy / Space sciences





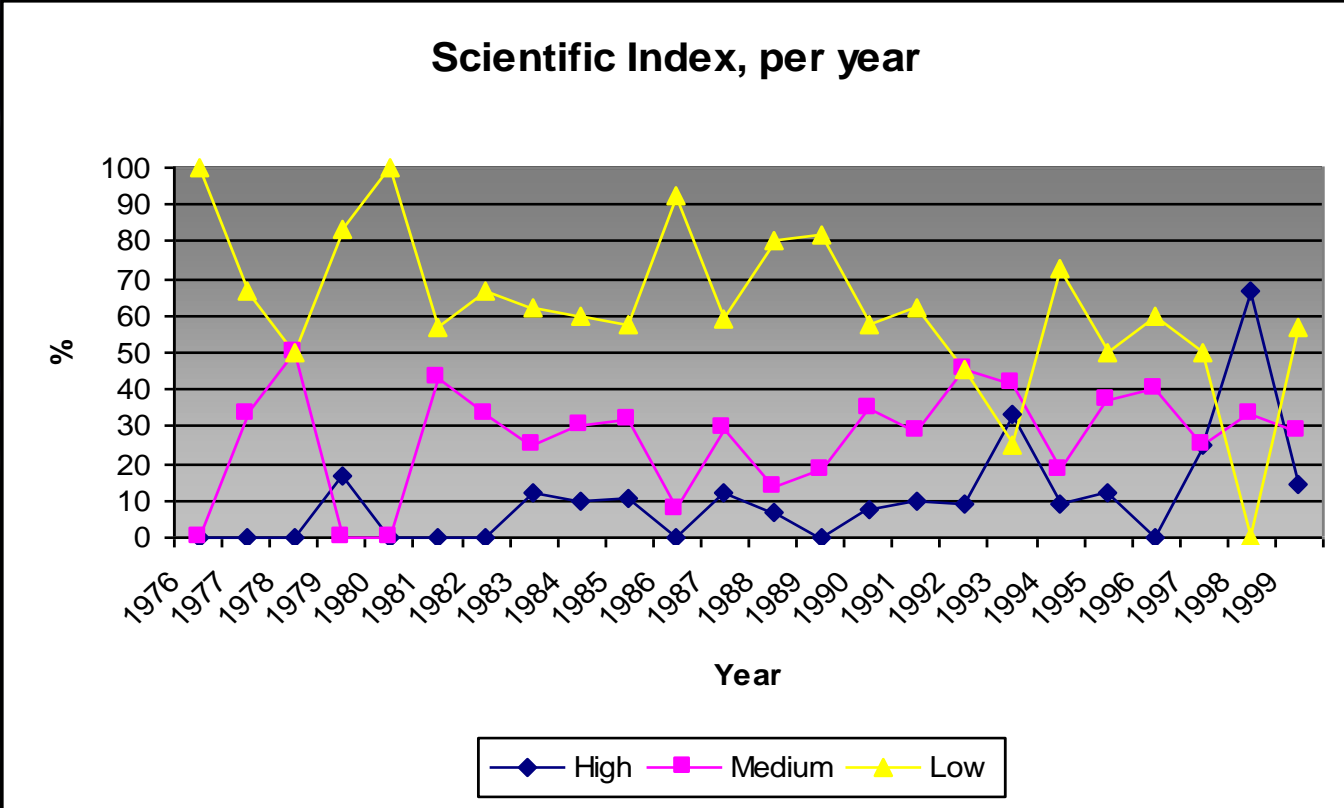
Articles





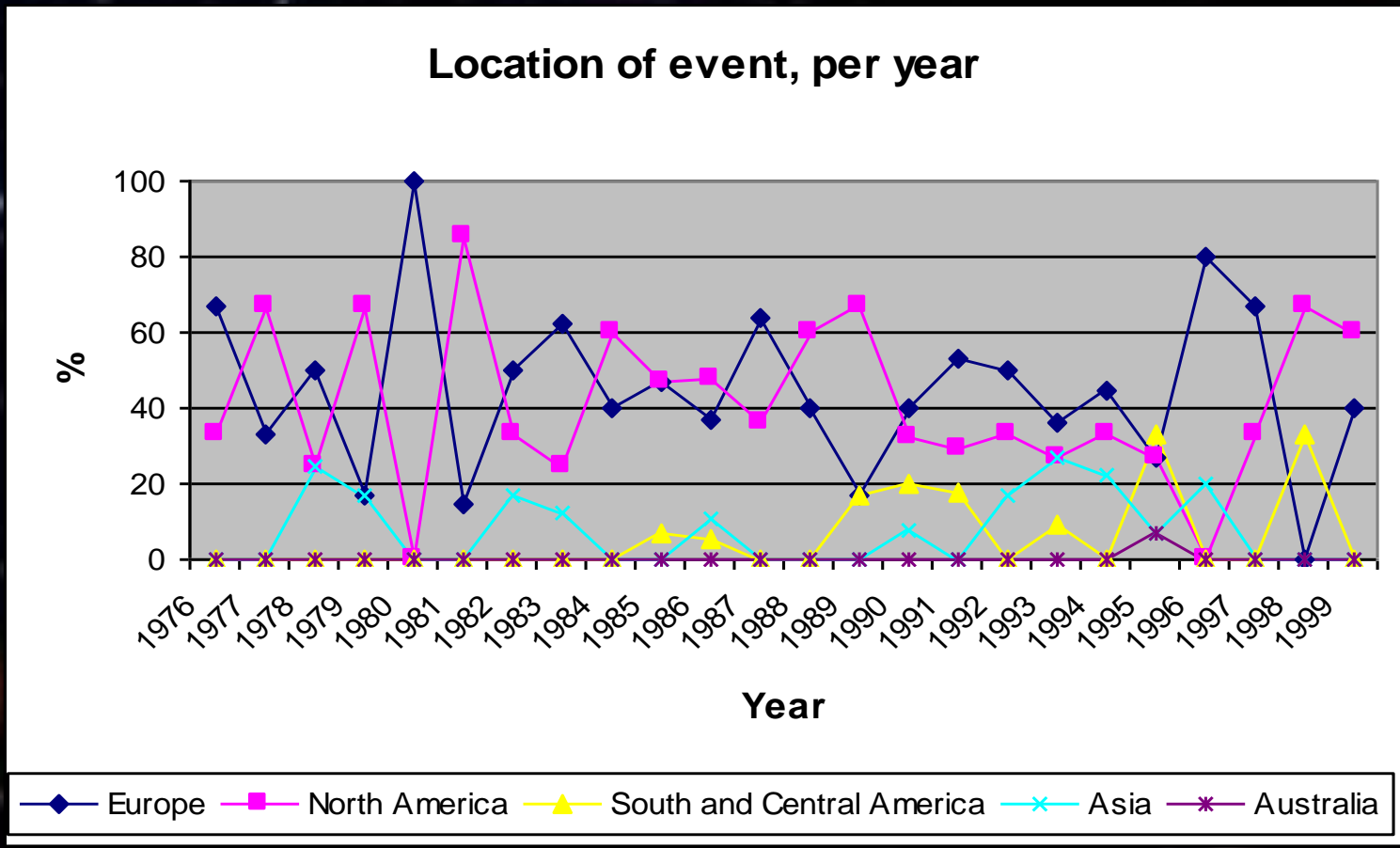
Scientific Index

(scientists quotations, theory, method, technical language/ jargon, bibliographic references, data and results, scientists names)





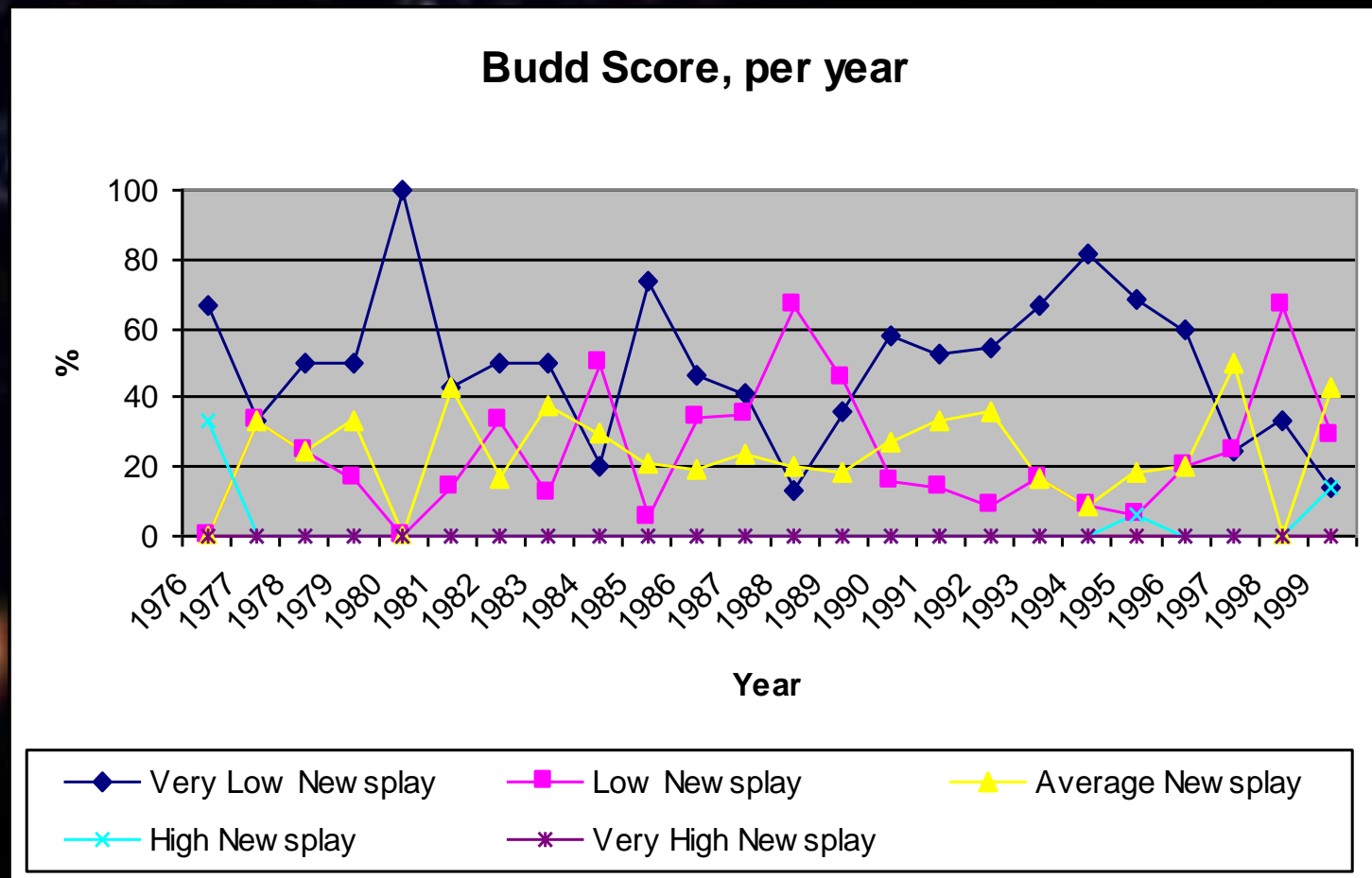
Location of Event





Budd Score

(highlight on first page, location on prominent page, location on page upper half, have illustrations, title dimension above the average).





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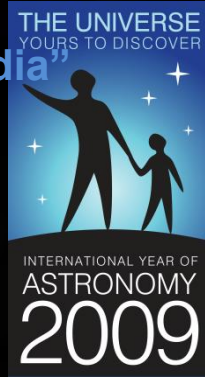


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