



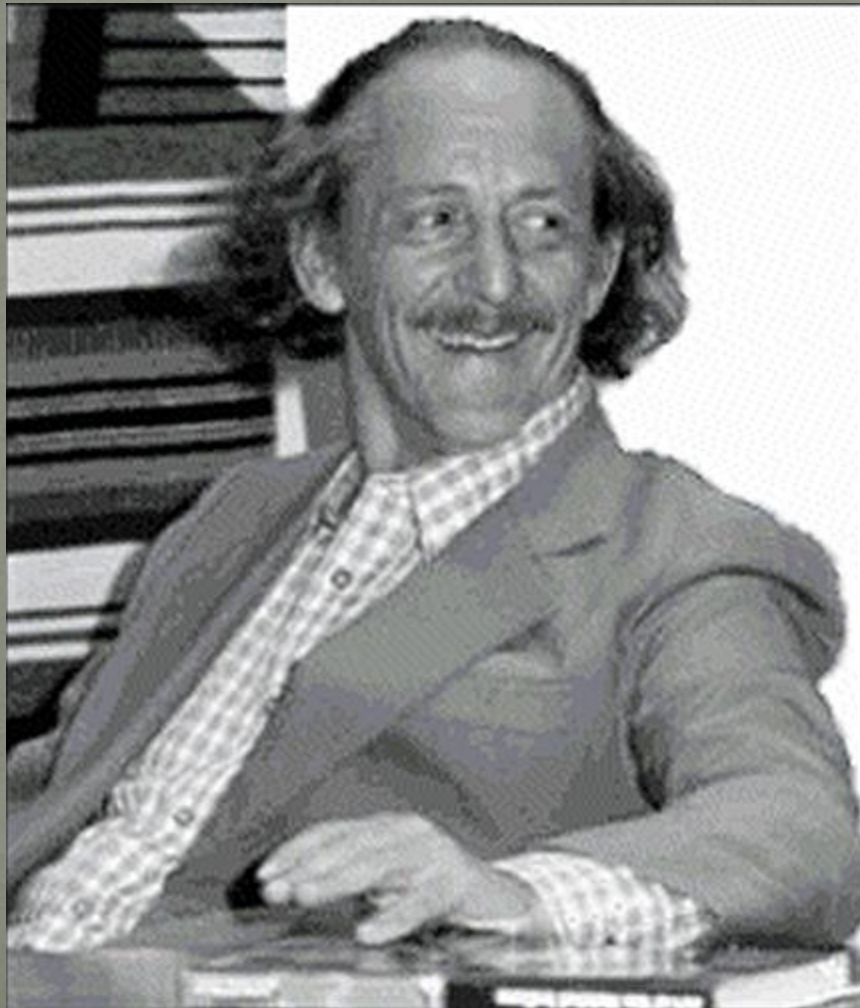
REUTERS/Dominic Ebenbichler

The Citation Index: *From Science Citation Index to Web of Science*

James Testa
VP Emeritus
Editorial Development & Publisher Relations
Merida – October 2015

Eugene Garfield, Ph D

Founder and President Emeritus
Thomson Reuters IP&S

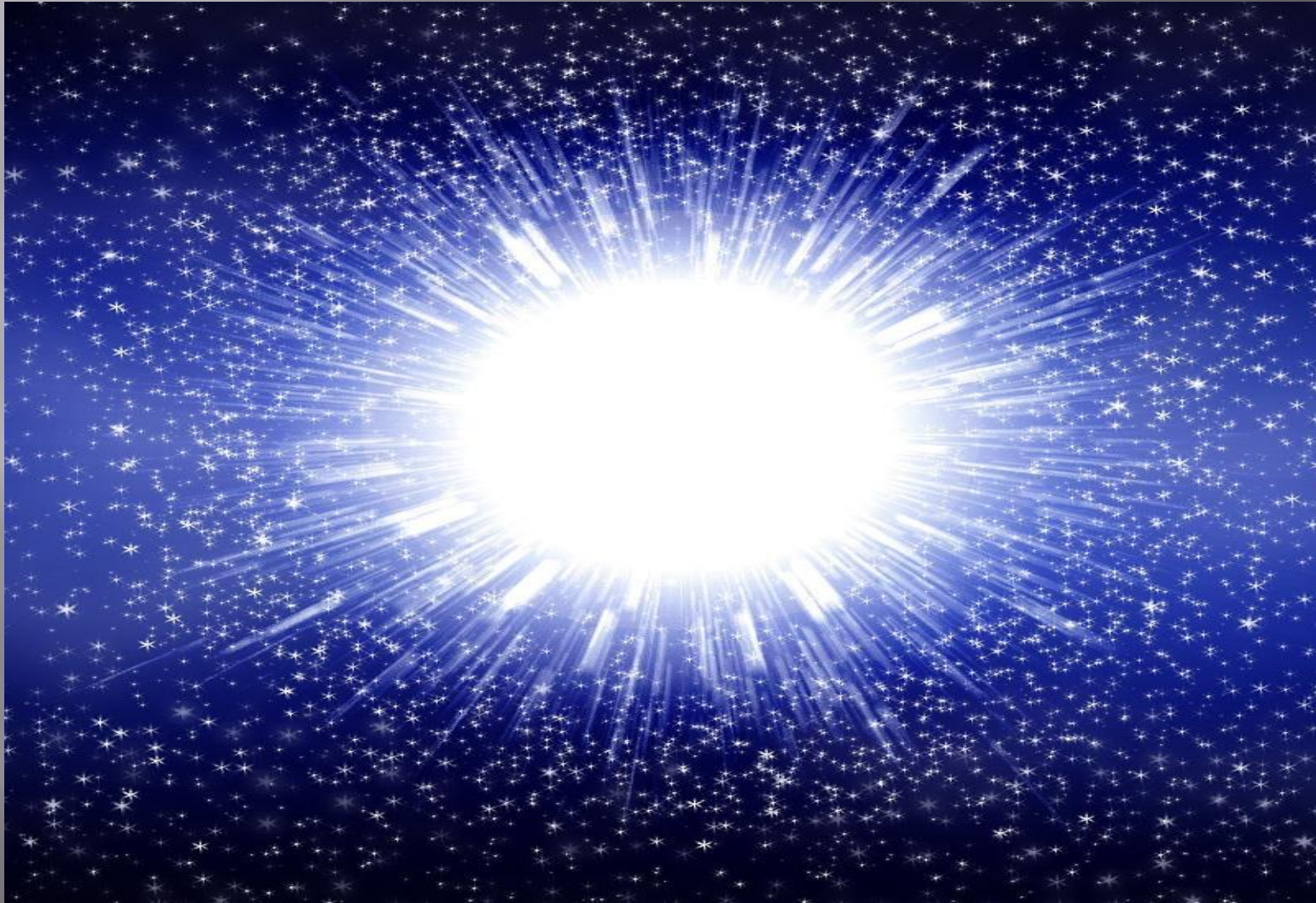


Our Material Universe



© AP

The Beginning of All Things...



Accelerated Expansion of the Universe

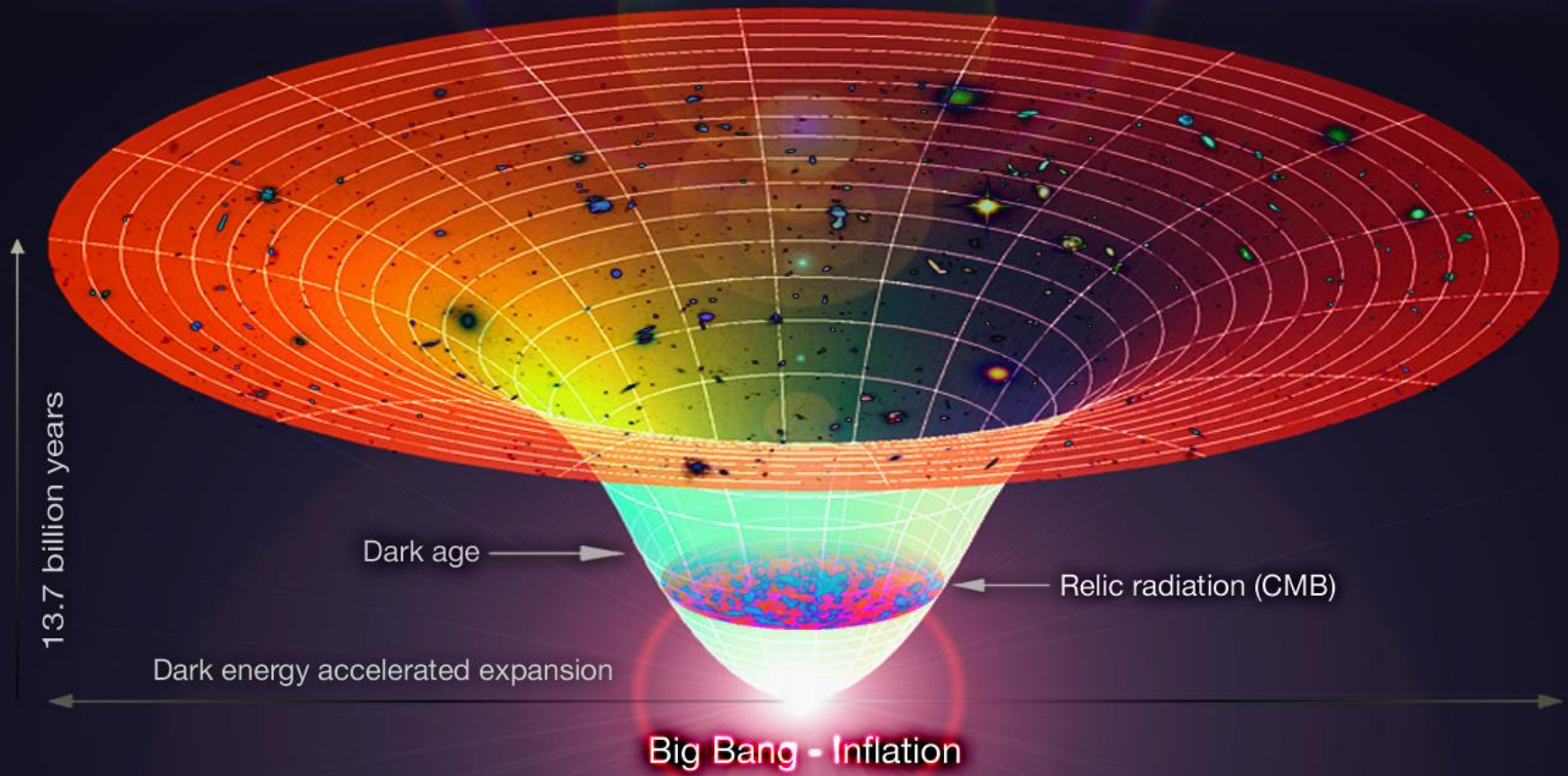
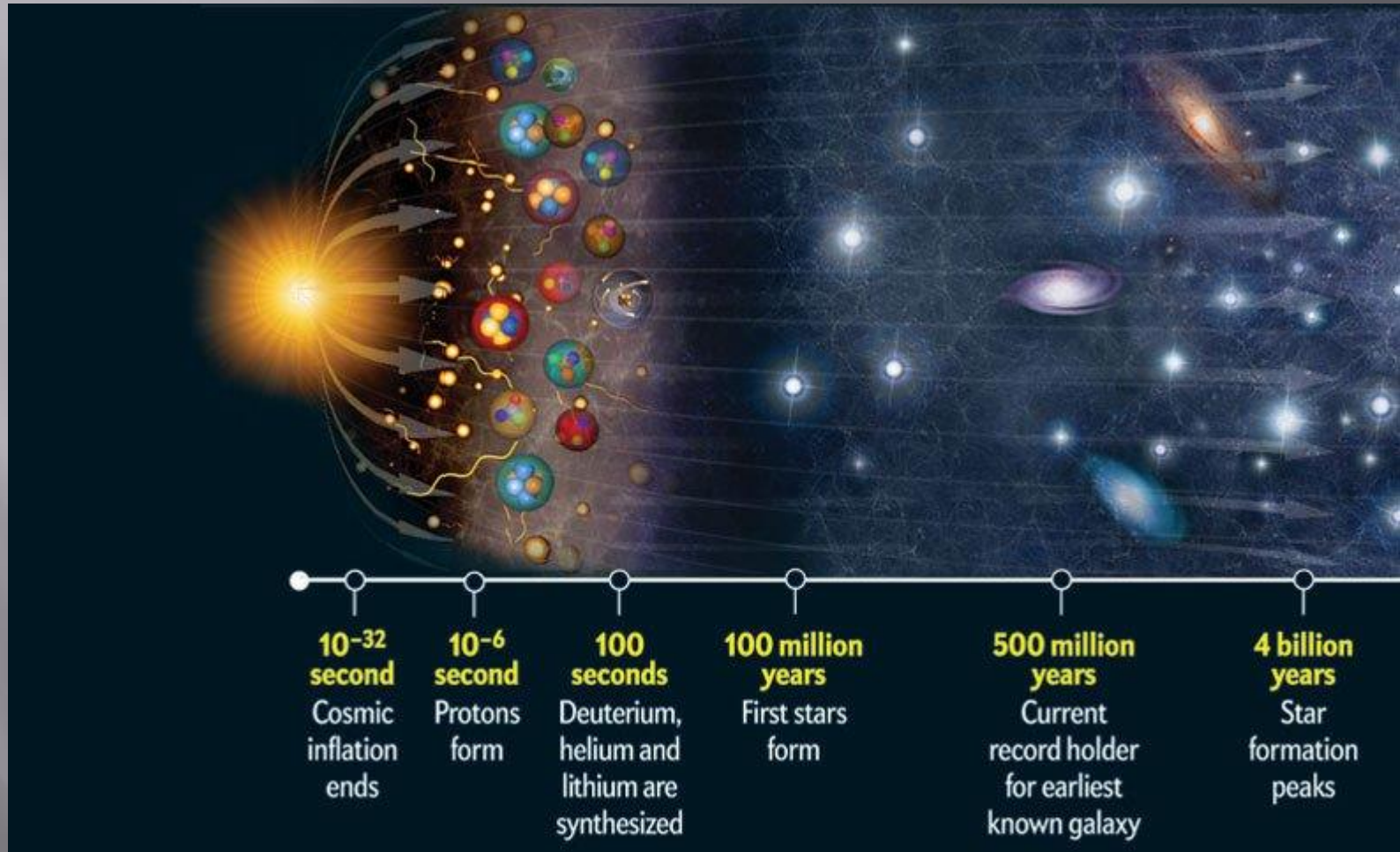


image: Coldcreation

The “Big Bang” and its aftermath...



Philosophical Transactions of the Royal Society

Volume I - 1665 & 1666

Published May 30, 1667

PHILOSOPHICAL
TRANSACTIONS:
GIVING SOME
ACCOMPT
OF THE PRESENT
Undertakings, Studies, and Labours
OF THE
INGENIOUS
IN MANY
CONSIDERABLE PARTS
OF THE
WORLD.

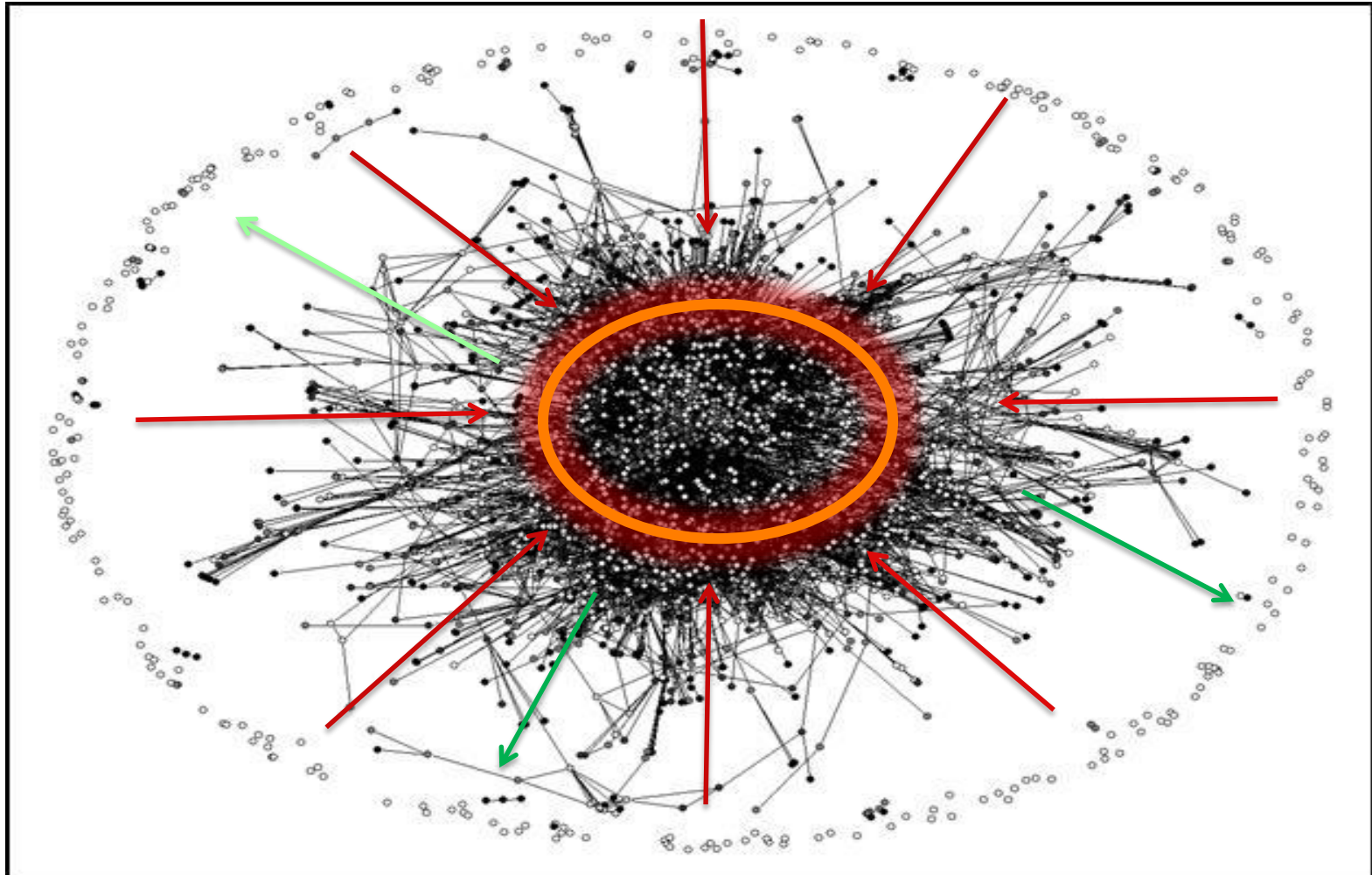
Vol I.

For Anno 1665, and 1666.

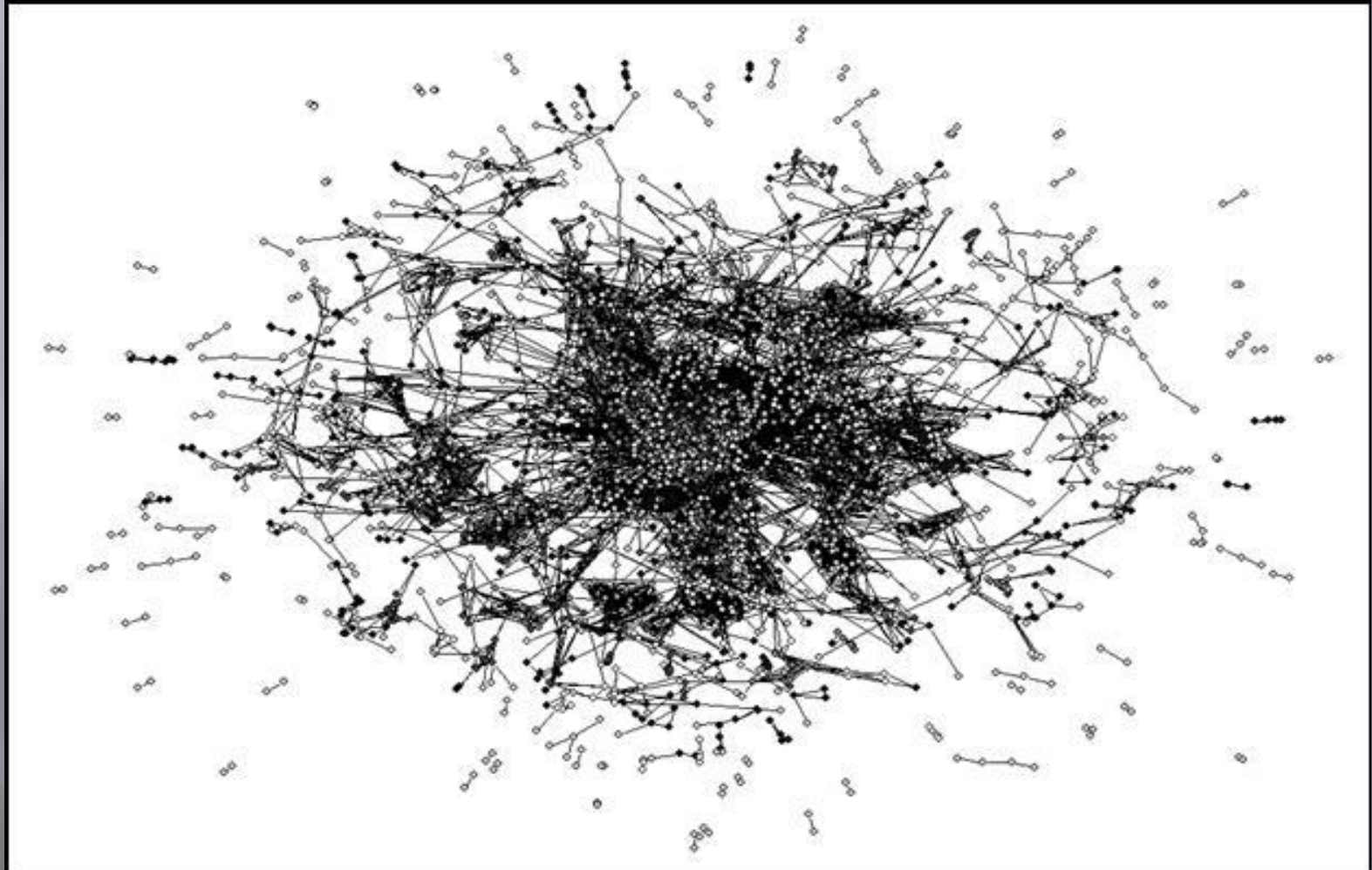
In the SAVOY,
Printed by T. N. for John Martyn at the Bell, a little with-
out Temple-Bar, and James Allestry in Duck-Lane,
Printers to the Royal Society.

Presented by the Author May 30th 1667.

A Possible View of the Core Literature in Relationship to the Research Frontier



How Was the Literature of Science Organized?



...by Subject Indexing and Title Word Indexing...

Editorial	Suggestions for Contributors	103
Articles	Emerging Concept of Poliomyelitis Infection: <i>D. Bodian</i>	105
	Citation Indexes for Science: <i>E. Garfield</i>	108
News of Science	Beycesultan and the Arzawan Culture; Antirabies Vaccine; Health Physics Society; Scientists in the News; Grants, Fellowships, and Awards; and Miscellaneous	112
Reports and Letters	Structure-Toxicity in Hexachlorocyclohexane Isomers: <i>L. J. Mullins</i>	118
	Improved Automatic Microtome: <i>V. Bush</i>	119
	Elemental Sulfur Dust, a Nutrient for Lemon Leaves: <i>F. M. Turrell and J. R. Weber</i>	119
	Arterial Synthesis of Cholesterol <i>in vitro</i> from Labeled Acetate: <i>N. F. Easley and G. H. Pritham</i>	121
	Effects of Plant-Growth-Regulating Substances on Control of <i>Erwinia amylovora</i> by Streptomycin and Terramycin: <i>D. D. Hemphill and R. N. Goodman</i>	122
Book Reviews	<i>The Proteins; Strength and Resistance of Metals; Isotope Geology; Vitamins and Hormones; General Chemistry; Perspectives and Horizons in Microbiology; Psychological Statistics; Hypertension; Humoral and Neurogenic Factors; New Books; and Miscellaneous Publications</i>	123
Scientific Meetings	World Health Assembly—Malaria Eradication; Society Elections; and Forthcoming Events	126

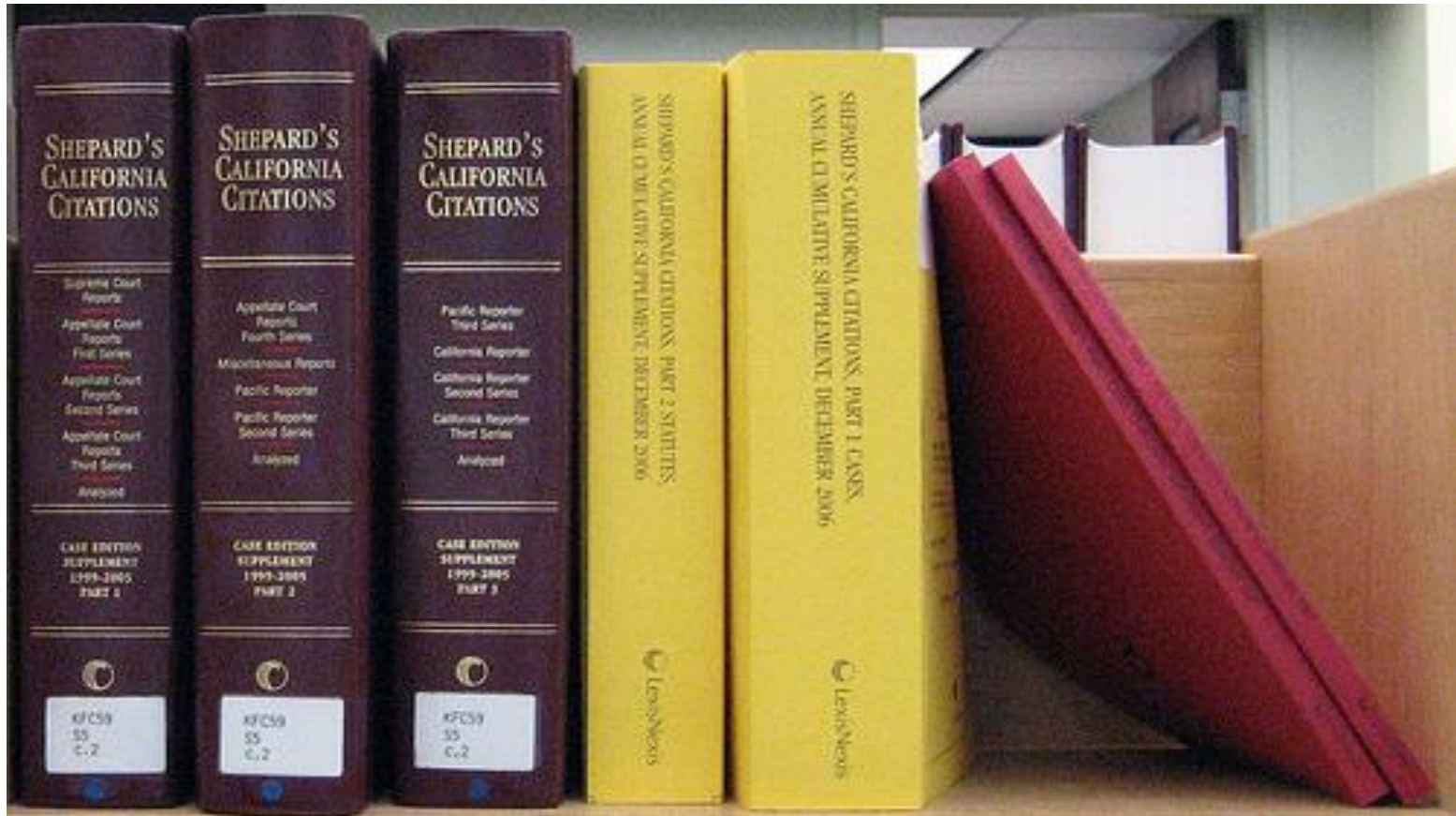
“...eliminate the uncritical citation of fraudulent, incomplete or obsolete data...be aware of criticisms of earlier papers.”

“...an association of ideas.”

“...an index that deals with the sub-micro or molecular unit of thought.”

Shepard's Citations

A Citation Index for the Legal Profession



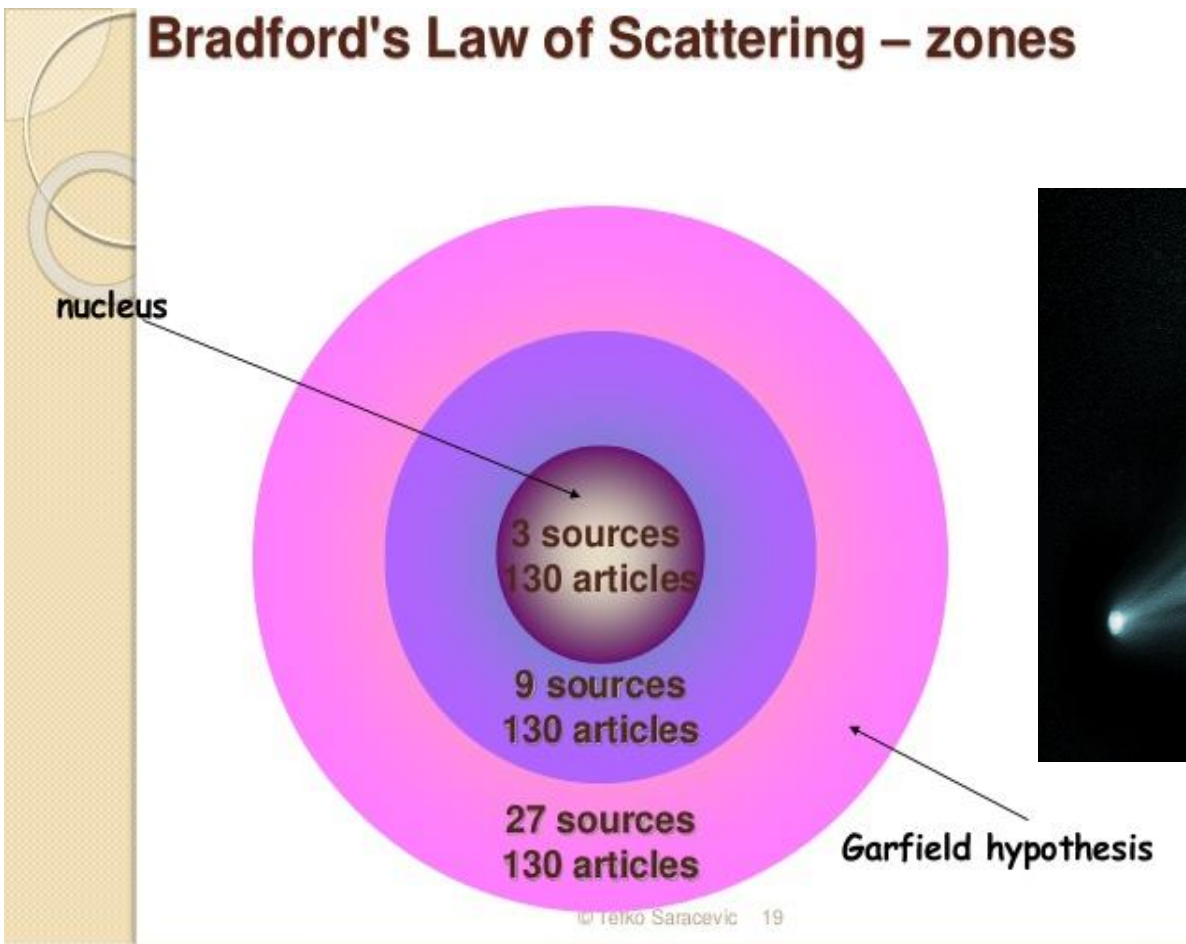
Building Journal Content Coverage for the SCI

Creating a True Citation Index

- Coverage must be comprehensive but not all-inclusive.
- Index every issue of each covered journal. No gaps.
- Index every item published in each covered journal (article, review, editorial etc.)
- Index **every cited reference** whether it refers to a covered source or to a source that is not covered.

“...it costs as much to index a useless item as it does to index a useful and important one...”

Bradford's Law of Scattering – zones



“Articles of interest to a specialist must occur not only in the periodicals specializing in his subject, but also from time to time, in other periodicals, which grow in number as the relation of their fields to that of the subject lessens, and the number of articles on his subject in each periodical diminishes”.

-S. C. Bradford

Garfield's Law of Concentration

“The tail of the literature of one discipline consists, in large part, of the cores of the literature of other disciplines.”

- E. Garfield

- *As a result, the core literature of **all** scientific disciplines at the time (1972) involved a group of not more than 1,000 journals and may even possibly be reduced to as few as 500 journals.*
- A relatively small number of journals account for the bulk of what is published and what is cited.

Science Citation Index – Print Edition



CORPORATE INDEX - ORGANIZATIONS

2014 Science Citation Index

MERISCOPE MARI	MESA FIRE MED	METAB SOLUT IN	METEO FRANCE U	METHODIST CTR	METRO MINNESOT
MERISCOPE MARINE RES STM CANADA PORTNEUF SUR MER MERIT OCEAN BIOTECH INC TAIWAN TAINAN MERIT PROJECT RHEODEBCEZ ITALY CEGLIE MERITCARE HOSP CCOP NORTH DAKOTA FARGO MERITCARE ROGER MARIS CANC CTR NORTH DAKOTA FARGO MERITER HLTH SERV WISCONSIN MADISON MERITER HOSP WISCONSIN MADISON MERITORIOUS AUTONOMOUS UNIV PUEBLA BUAP MEXICO PUEBLA MERK NEW YORK YONKERS MERK SERONO SWITZERLAND GENEVA MERKERT CHEM CTR MASSACHUSETTS CHESTNUT HILL MERKEZ EFENDI STATE HOSP TURKEY MANISA MERKEZEFENDI STATE HOSP TURKEY MERKEZEFENDI MERKSEM SCHITZEN BI MER CH MER CH MER MASSACHUSETTS CAMBRIDGE MERLIN AFGHANISTAN KABUL MERLIN DIAGNOST GMBH GERMANY BORNHEIM MERLIN LABS INC CALIFORNIA CARLSBAD MERLIN PK RES HOSP IRELAND GALWAY MERLIN PK UNIV HOSP IRELAND GALWAY MERLION MAJULAB SINGAPORE SINGAPORE MERLION PHARMACEUT SINGAPORE SINGAPORE MERLION PHARMACEUT GMBH GERMANY BERLIN MERLO ARGENTINA BUENOS AIRES MERN MYANMAR YANGON MERN INSTRUMENTI MILJKOVIC BUDIMIR & DRUGI DO BA SERBIA BELGRADE MERN FERTIL CLIN IRELAND DUBLIN MERRIAM POWELL CTR ENVIRONM RES ARIZONA FLAGSTAFF MERRILL GAPPINAYER CLIN UTAH PROVO MERRIBACK COLL MASSACHUSETTS N ANDOVER	MESA FIRE MED DEPT ARIZONA MESA MESA INST NANOTECHNOL NETHERLANDS ENSCHDEDE MESA PHOTON LLC NEW MEXICO SANTA FE MESA TECNOL MEXICO EL SALTO MESA VERDE NATL PK COLORADO MESA VERDE MESA WATER DIST CALIFORNIA COSTA MESA MESALANDS COMMUNITY COLL NEW MEXICO TUCUMCARI MESAU UGANDA KAMPALA MESAU CONSORTIUM COMMUNITY BASED EDUC RES & SERV UGANDA KAMPALA MESCS JSI SLOVENIA LJUBLJANA MESH SOLUT D.C. WASHINGTON MESHALKIN RES INST CIRCULAT PATHOL RUSSIA NOVOYSIBIRSK MESHSR CO LTD PEOPLES R CHINA NANJIANG	METAB SOLUT INC NEW HAMPSHIRE NASHUA METAB TECHNOL INC IOWA AMES METABIOTA CALIFORNIA SAN FRANCISCO METABIOTA INC CALIFORNIA SAN FRANCISCO METABOL PLATFORM FRANCE VILLEJUIF METABOLIX INC MASSACHUSETTS CAMBRIDGE METABOLIX PLATFORM FRANCE PARIS METABOLIX CALIFORNIA MOUNTAIN VIEW METABOLON NORTH CAROLINA DURHAM NORTH CAROLINA RES TRIANGLE PK METABOLON INC NORTH CAROLINA DURHAM NORTH CAROLINA RALEIGH NORTH CAROLINA RES TRIANGLE PK METABOLYS INC FRANCE LYON METABOSCREEN CO LTD JAPAN YOKOHAMA METABRAIN RES FRANCE JULY MATAZIN	METEO FRANCE UNIV REUNION ST DENIS METEO ROMANIA NATL METEOROL ADM ROMANIA BUCHAREST METEODAT GMBH SWITZERLAND ZURICH METEOPLOURATION COM AUSTRIA INNSBRUCK METEOFRANCE CNRS FRANCE TOULOUSE METEOFRANCE CNRS URA 1357 FRANCE TOULOUSE METEOFRANCE NOUVELLE CALEDONIE NEW CALEDONIA NOUMEA METEOFRANCE POLYNESIE FRANCAISE FR POLYNESIA TAHITI METEOGALICIA SPAIN SANTIAGO COMPOSTE METEOGRP NETHERLANDS WAGENINGEN METEOLABOR AG SWITZERLAND WETZIKON METEOLOGR FRANCE PAU METEOLOGICS INC ALASKA FAIRBANKS METEORITE LAB GERMANY GIFHORN METEORITE LAB GEFHORN GERMANY GEFHORN	METHODIST CTR ORTHOPAED SURG TEXAS HOUSTON METHODIST DALLAS MED CTR TEXAS DALLAS METHODIST DEBAKEY HEART & VASC CTR TEXAS HOUSTON METHODIST DEBAKEY HEART & VASC CTR TEXAS HOUSTON METHODIST DEBAKEY HEART & VASC CTR METHODIST HOSP TEXAS HOUSTON METHODIST DEBAKEY HEART & VASC INST TEXAS HOUSTON METHODIST DEBAKEY HEART CTR TEXAS HOUSTON METHODIST DEBAKEY HEART & VASC CNTR TEXAS HOUSTON METHODIST HEALTHCARE TENNESSEE MEMPHIS METHODIST HEALTHCARE SYST TEXAS SAN ANTONIO METHODIST HEALTHCARE UNIV HOSP TENNESSEE MEMPHIS METHODIST HLTH SYST	METRO MINNESOTA CCOP MINNESOTA MINNEAPOLIS METRO MINNESOTA COMMUNITY CLIN ONCOL PROGRAM MINNESOTA MINNEAPOLIS MINNESOTA ST LOUIS PK METRO NORTH HLTH SERV DIST AUSTRALIA BRISBANE METRO NORTH HOSP & HLTH SERV AUSTRALIA BRISBANE METRO NORTH MENTAL HLTH AUSTRALIA BRISBANE METRO NORTH MENTAL HLTH ROYAL BRISBANE & WOMENS H AUSTRALIA BRISBANE METRO NORTH RAILRO NEW YORK NEW YORK METRO PUBL HLTH DEPT TENNESSEE NASHVILLE METRO RES CTR OREGON PORTLAND METRO SOUTH ADDICT & MENTAL HLTH SERV AUSTRALIA BRISBANE AUSTRALIA WOOLLOONGABBA METRO SOUTH HLTH AUSTRALIA BRISBANE AUSTRALIA WOOLLOONGABBA

Cross-references each institution with its geographic location

MERLIN AFGHANISTAN KABUL MERLIN DIAGNOST GMBH GERMANY BORNHEIM MERLIN LABS INC CALIFORNIA CARLSBAD MERLIN PK RES HOSP IRELAND GALWAY MERLIN PK UNIV HOSP IRELAND GALWAY MERLION MAJULAB SINGAPORE SINGAPORE MERLION PHARMACEUT SINGAPORE SINGAPORE MERLION PHARMACEUT GMBH GERMANY BERLIN MERLO ARGENTINA BUENOS AIRES MERN MYANMAR YANGON MERN INSTRUMENTI MILJKOVIC BUDIMIR & DRUGI DO BA SERBIA BELGRADE MERN FERTIL CLIN IRELAND DUBLIN MERRIAM POWELL CTR ENVIRONM RES ARIZONA FLAGSTAFF MERRILL GAPPINAYER CLIN UTAH PROVO MERRIBACK COLL MASSACHUSETTS N ANDOVER	MESO SCALE DIAGNOST LLC MARYLAND GAITHERSBURG MARYLAND ROCKVILLE MESO SCALE DISCOVERY MARYLAND GAITHERSBURG MARYLAND ROCKVILLE MESOBLAST INC NEW YORK NEW YORK MESOBLAST LTD AUSTRALIA MELBOURNE NEW YORK NEW YORK MESOTHELIONA APPL RES FDM VIRGINIA ALEXANDRIA MESOTHERAPIE & ESTETIK NEW YORK NEW YORK MESSEJANA HEART & LUNG HOSP BRAZIL FORTALEZA MESSER AUSTRIA GMBH AUSTRIA GUMPOLDSDORFEN MESSER AUSTRIA GMBH KOMPETENZENTRUM MET AUSTRIA GUMPOLDSDORFEN MESSERLI FORSCHUNGINST AUSTRIA VIENNA MESSIAH COLL PENNSYLVANIA GRANTHAM PENNSYLVANIA MECHANICSBURG MESSIER DOWTY INC CANADA AJAX MESSINA UNIV HOSP ITALY MESSINA MESSNETZENT LANGEN GERMANY LANGEN	METALL MAT RES CTR MIMRC MA IRAN TEHRAN METALL TECHNOL & SURFACE ENGN IW MS GERMANY OTTOBRUNN METALLBAU GREIL GMBH GERMANY ROETTENBACH METALLOGEN CONSULTING AUSTRALIA SYDNEY METALLOPHARM LLC OHIO DELAWARE METALLOSENSOR INC UTAH SALT LAKE CITY METAMAGNETICS INC MASSACHUSETTS CANTON METAMARK GENET INC MASSACHUSETTS CAMBRIDGE METAMARK LTD RUSSIA MOSCOW METAMED NEW YORK NEW YORK METAMIXIS INC CANADA VANCOUVER METAMODAL BV NETHERLANDS EINDHOVEN METAMOL THERANOST OHIO CONCERNATI METAN GMBH GERMANY BERLIN METAN HLTH GMBH GERMANY BERLIN METAMOTIA INST	HAMBURG GERMANY HAMBURG METEORITE RECOVERY LAB CALIFORNIA ESCONDIDO METEOROL & AIR QUAL GRP NETHERLANDS WAGENINGEN METEOROL & HYDROL SERV CROATIA ZAGREB METEOROL & HYDROL SERV CROATIA CROATIA ZAGREB METEOROL & HYDROL SERV CROATIA DHMZ CROATIA ZAGREB METEOROL & HYDROL SERV OHMZ CROATIA ZAGREB METEOROL ADM GUANGDONG PROV PEOPLES R CHINA GUANGZHOU METEOROL ADM TIANJIN BENHAI NEW AREA PEOPLES R CHINA TIANJIN METEOROL BUR PEOPLES R CHINA SHANGHAI METEOROL BUR BAOJI MUNICIPAL PEOPLES R CHINA BAOJI METEOROL BUR GANSU PEOPLES R CHINA LANZHOU METEOROL BUR GANSU PROV PEOPLES R CHINA LANZHOU METEOROL BUR HONGKIA HUI AUTONOMOUS RES PEOPLES R CHINA YINCHUAN METEOROL BUR QUANGZHOU	NEW YORK NEW YORK TEXAS DALLAS TEXAS HOUSTON METHODIST HOSP & RES INST TEXAS HOUSTON METHODIST HOSP INDIANA INDIANA INDIANAPOLIS METHODIST HOSP LABS NEBRASKA OMAHA METHODIST HOSP MEMPHIS TENNESSEE MEMPHIS METHODIST HOSP PHYS ORG D.C. HOUSTON TEXAS HOUSTON METHODIST HOSP RES INST TEXAS HOUSTON METHODIST HOSP SYST TEXAS HOUSTON METHODIST HOSP SYST ETH PROGRAM TEXAS HOUSTON METHODIST LE BONHEUR HEALTHCARE TENNESSEE MEMPHIS METHODIST LE BONHEUR HLTH CARE TENNESSEE MEMPHIS METHODIST MED CTR TEXAS DALLAS METHODIST MED CTR ILLINOIS ILLINOIS PEORIA METHODIST NE UROL INST TEXAS HOUSTON METHODIST PHYS CLIN NEBRASKA OMAHA	AUSTRALIA MELBOURNE METRO SOUTH PUBL HLTH UNIT AUSTRALIA BRISBANE METRO SPINAL CLIN AUSTRALIA MELBOURNE METRO UROL MINNESOTA WOODBURY TEXAS HOUSTON METRO UROL CORNERSTONE MED CTR MINNESOTA WOODBURY METROHEALTH OHIO CLEVELAND METROHEALTH MED CTR OHIO CLEVELAND METROHLTH CASE WESTERN RESERVE UNIV OHIO CLEVELAND METROHLTH CHESTER SUMMER SCHOLARS PROGRAM OHIO CLEVELAND METROHLTH HOSP OHIO CLEVELAND METROHLTH MED CNTR OHIO CLEVELAND METROHLTH MED CTR OHIO CLEVELAND METROHLTH MED CTR CWRU OHIO CLEVELAND METROHLTH REHABIL INST OHIO OHIO CLEVELAND METROHLTH SYST OHIO CLEVELAND METROHLM APPLIKON BV
---	--	--	--	---	--

CORPORATE INDEX - GEOGRAPHICAL

2014 Science Citation Index

MEXICO	MEXICO	MEXICO	MEXICO	MEXICO	MEXICO	MEXICO	MEXICO
CANCUN	CD VICTORIA	CHETMAL	CHIHUAHUA	CHILPANCINGO	CIUDAD GUZMAN	CIUDAD GUZMAN	CIUDAD GUZMAN
VOL PG YR	VOL PG YR	VOL PG YR	VOL PG YR	VOL PG YR	VOL PG YR	VOL PG YR	VOL PG YR
<p>CANCUN</p> <p>YANEZARA A ECOL ENG 65 88 14</p> <p>INST TECNOL CANCUN</p> <p>BARBOSA R INT J HYD E 39 6637 14</p> <p>VALENZUELA M J APPL ELEC 44 695 14</p> <p>SECRETARIA SALUD ESTADO</p> <p>QUINTANA ROO</p> <p>CORTESCUAJ SW ENTOMOL 38 231 13</p> <p>SANCHEZLOS 39 459 14</p> <p>SECRETARIA SALUD ESTADO</p> <p>QUINTANA ROO CANCUN</p> <p>SANCHEZCARM SW ENTOMOL 38 109 13</p> <p>TECNOCEANO</p> <p>LOPEZ R J COAST RES 86 14</p> <p>RODRIGZ 75 14</p> <p>UNIV CARIBE</p> <p>DEPT BASIC SCI</p> <p>TREJOSSANJA J PAR DISTR 74 2193 14</p> <p>UNIV NAACL AUTONOMA MEXICO</p> <p>UNST CIENCIAS MAR & LITORAL</p> <p>UNIDAD ACAD SISTEMAS ANDECEPALES</p> <p>PUEERTO MORELOS</p> <p>RAMOS NG</p> <p>LAB POTRIOL</p> <p>UNIDAD ACAD POTRIOL</p> <p>PUEERTO MORELOS</p> <p>UNST CIENC</p> <p>ENRIQUEZ S</p> <p>UNIDAD ACAD SISTEMAS ANDECEPALES</p> <p>UNST CIENCIAS MAR & LITORAL</p> <p>IGLESIAS R P NAS US 111 8300 14</p> <p>UNIV POLITECN QUINTANA ROO</p> <p>DEPT INGEN BIOTECNOL</p> <p>ESQUIVELL BIOM ENG 83 70 14</p> <p>CANCUN QUINTANA ROO</p> <p>UNIV NAACL AUTONOMA MEXICO</p> <p>UNST CIENCIAS MAR & LITORAL</p> <p>UNIDAD ACAD SISTEMAS ANDECEPALES</p> <p>PUEERTO MORELOS</p> <p>BANASZAK AT J EXP MAR B 449 358 13</p> <p>POSADORA CIENCIAS MAR & LITORAL</p> <p>BANASZAK AT J EXP MAR B 449 358 13</p> <p>CARMEN</p> <p>UNIV AUTONOMA CARMEN</p> <p>FAC INGEN</p> <p>OURBANAM REV MEX FIS 60 22 14</p> <p>CARR COLIMA</p> <p>COQUIMATLAN</p> <p>UNIV COLIMA</p> <p>FAC CIENCIAS QUIM</p> <p>ROMERO JC BIO MED CH 22 6895 14</p> <p>CARRERA</p> <p>INST NAACL CIENCIAS MED & NUTR SALVADOR ZUBIRAN</p> <p>GIENLOPEJ NEUROLOGY 80 P171 13</p> <p>80 P218 13</p> <p>CARRETERA LA PAZ PICHILI</p> <p>INST NAACL PESCA SAGARPA</p> <p>GUZMANDESA J SHELLFISH 32 217 13</p> <p>CASCO DE SAN TOMAS</p> <p>ESCUELA NAACL CIENCIAS BIOLG</p> <p>UNST POLITICA NAACL</p> <p>RAMIREZ A I ADP DUYV 26 907 14</p>	<p>CD VICTORIA</p> <p>BORDERA S CAN ENTOMOL 146 355 14</p> <p>FAC MED VET & ZOOTECNIA</p> <p>RAMIREZ R TROP ANIM 46 823 14</p> <p>INST ECOL APLICADA</p> <p>AGUIRRE M CL SW ENTOMOL 39 477 14</p> <p>BARROSOS CRUSTACEANA 86 1711 13</p> <p>DIV GELFO 356</p> <p>VILLESAL SW ENTOMOL 39 613 14</p> <p>CELAYA</p> <p>INIFAP</p> <p>MALDONADO J CEREAL SC 60 172 14</p> <p>INST NAACL INVEST FORESTALES AGRICOLAS & PECUARIAS</p> <p>P NAS US 111 5135 14</p> <p>INST TECNOL CELAYA</p> <p>CHEN ENGR DEPT</p> <p>MEDINAHEM INT J ENG RES 53 2023 14</p> <p>DEPT INGEN ENGEN</p> <p>INDEMANDEAV INT J BIO M 64 306 14</p> <p>DEPT CIEN ENGEN</p> <p>RAMIREZA E ELECT ACT 112 894 13</p>	<p>CHETMAL</p> <p>PLANTE S J ANIM ECOL 83 116 14</p> <p>EL COLEGIO FRONTERA SUR ECOSUR</p> <p>UNIDAD CHETUMAL</p> <p>CASCA R CRUSTACEANA 86 1539 13</p> <p>J MOL LUS ST 80 35 14</p> <p>SUAREZ M DE INV ENTEBR R 58 60 14</p> <p>INST TECNOL CHETUMAL</p> <p>RAMIREZ R SW ENTOMOL 38 99 13</p> <p>DEPT INGEN QUIM & BIOTECNOL</p> <p>SANCHEZ CAN CORAL REEF 33 241 14</p> <p>SECRETARIA SALUD ESTADO</p> <p>QUINTANA ROO</p> <p>RAMIREZ R SW ENTOMOL 38 99 13</p> <p>UNIV QUINTANA ROO</p> <p>CHARQUIA P DES ADU ORG 109 263 14</p> <p>VILLALBA R J KAN ENT S 86 352 13</p> <p>DEPT INGEN</p> <p>SANCHEZ VM INT J HYD E 39 6750 14</p> <p>DIV CIENCIAS & INGEN</p> <p>CARRILLO JG J ADRES SCI 28 2289 14</p>	<p>CHIHUAHUA</p> <p>MONARREZ B J ALLOY COM 615 5328 14</p> <p>RISVOLDO E MAT SC EN B 179 41 14</p> <p>TORRESTO J MOD OPT 61 1500 14</p> <p>LAB VIRTUAL NANOCOSMOS</p> <p>AMADORFAL J CHIM CHEM 60 1212 13</p> <p>CTR INVEST MAT AVANZADOS</p> <p>SC CIMAV</p> <p>LEYVA P ORC CARBON 70 164 14</p> <p>MEZA MM PHYSICA B 453 136 14</p> <p>TORCHYNS TV 453 68 14</p> <p>DEPT MAT NANDESTRUCT</p> <p>JORTIZ AL INT J HYD E 39 6585 14</p> <p>FAC CIENCIAS AGROTECNOL</p> <p>JFAZIO C J AM S HORT 139 87 14</p> <p>HOSP JUAREZ MEXICO</p> <p>UNITS CARE UNIT</p> <p>LABELLE TOM INTEN CAR M 39 340 13</p> <p>IMSS</p> <p>PELAEZBAI RHEUM INTL 34 1299 14</p> <p>INST ECOL AC</p> <p>CTR INVEST SABRE SEQUIA INECOL CETSS</p>	<p>CHILPANCINGO</p> <p>UNST INVEST CIEN AREA CIENCIAS NAT</p> <p>LAB EXP ENCIOL & ZOOGENESIS</p> <p>ICAMPOSHE E TROP ANIM 46 919 14</p> <p>UNIV AUTONOMA GUERRERO</p> <p>LDOR A ERV ENTOMOL 43 706 14</p> <p>FAC ENGN</p> <p>BUENO D SENS ACTU-B 203 81 14</p> <p>UNST INVEST CIEN AREA CIENCIAS NAT</p> <p>DECA ANM REAPER TOLOGI 70 241 14</p> <p>UNIDAD ACAD CIENCIAS QUIM BIOL</p> <p>DELACRUZU HUMAN IMMUN 75 433 14</p> <p>LAB INVEST OBESIDAD & DIABET</p> <p>HOURRIOL J NUTRITION 30 145 14</p> <p>UNIDAD ACAD MATEMAT</p> <p>BUENOMO B ACT APPL MA 132 327 14</p> <p>CHILPANCINGO LOS BRAVO</p> <p>UNIV AUTONOMA GUERRERO</p> <p>UNIDAD ACAD CIENCIAS QUIM BIOL</p> <p>MALDONADYI SCI HORT A 174 143 14</p>	<p>CIUDAD GUZMAN</p> <p>UNIV GUADALAJARA</p> <p>CTR UNIV SUH</p> <p>AREA ENTOMOL MED</p> <p>VILLAGRA ME MEM T OSW C 109 967 14</p> <p>LAB BIOL MOL & IMMUNOL</p> <p>VIVALDO ZEO BIOL TR EL 157 211 14</p> <p>SOUTHERN UNIV CTR</p> <p>JARECHIGA D KNOWL ENG R 29 186 14</p> <p>CIUDAD IND LERMA</p> <p>COLEGIO FRONTERA SUR COMACT</p> <p>LAB PESQUERIAS ARTESANALES</p> <p>RODRIGUEA J EXP MAR B 449 294 13</p> <p>CIUDAD JUAREZ</p> <p>AUTONOMOUS UNIV CIUDAD JUAREZ</p> <p>ICOPADO R J FOOD PROT 77 1588 14</p> <p>DEPT IND ENGN & MFG</p> <p>GARCIA JL INT J PROD 52 4931 14</p> <p>AUTONOMOUS UNIV JUAREZ</p> <p>UNST BIOMED SCI</p> <p>24 280 14</p>		

Subdivided by country, city, institution, department, etc

Each SCI literature search involved consulting multiple volumes....

THE ASTRONOMICAL JOURNAL

VOLUME 84, NUMBER 3

MARCH 1979

EXPLORATORY OBSERVATIONS OF GAS NEAR THE NUCLEI OF SEYFERT GALAXIES

BRUCE BALICK^{a)} and TIMOTHY HECKMAN^{a) b)}

Astronomy Department, University of Washington, Seattle, Washington 98195

Received 6 November 1978

ABSTRACT

The extranuclear regions of NGC 1068, 3C 120, NGC 1275, Mrk 1, and Mrk 3 have been examined spectrophotometrically. In every case gas ~ 1 kpc or more from the nucleus exhibits certain spectroscopic similarities to the nucleus in terms of velocities and relative line intensities. These results strongly suggest that some sort of communication exists between the nucleus and the gas outside. Each galaxy has highly individual characteristics in many respects. NGC 1068 has an elliptical region extending ≥ 600 kpc which seems to be ionized much like the nucleus. 3C 120 has at least two regions lying more than 5 kpc from the nucleus whose ionization appears to be similar to that in the nucleus but whose internal dynamics are distinctly different. Mrk 1, on the other hand, shows only weak off-nuclear emission lines whose widths are about the same as that of the nucleus itself.

...and usually with help from an expert librarian.

SCI + SSCI + AHCI



EXPLORATORY OBSERVATIONS OF GAS NEAR THE NUCLEI OF SEYFERT GALAXIES

BRUCE BALICK^{a)} and TIMOTHY HECKMAN^{a) b)}

Astronomy Department, University of Washington, Seattle, Washington 98195

Received 6 November 1978

Web of Science™

InCites™

Journal Citation Reports®

Essential Science Indicators™

EndNote™

James ▾

Help

English ▾

WEB OF SCIENCE™



THOMSON REUTERS™

Search

Web of Science™ Core Collection ▾

My Tools ▾

Search History

Marked List

Welcome to the new Web of Science! [View a brief tutorial.](#)

Basic Search ▾

seyfert-galaxies



Topic



AND ▾

balick, b



Author



↳ [Select from Index](#)

AND ▾

1979



Year Published



AND ▾

univ* wash*



Address



Search

[View Abbreviations List](#)

[+ Add Another Field](#) | [Reset Form](#)

[Click here for tips to improve your search.](#)

TIMESPAN

All years ▾

From 1900 ▾ to 2015 ▾



THOMSON REUTERS

EXPLORATORY OBSERVATIONS OF GAS NEAR THE NUCLEI OF SEYFERT-GALAXIES

By: [BALICK, B \(BALICK, B\)](#); [HECKMAN, T \(HECKMAN, T\)](#)

ASTRONOMICAL JOURNAL

Volume: 84 Issue: 3 Pages: 302-310

DOI: 10.1086/112422

Published: 1979

[View Journal Information](#)

Author Information

Reprint Address: [BALICK, B \(reprint author\)](#)

[+](#) UNIV WASHINGTON, DEPT ASTRON, SEATTLE, WA 98195, USA.

Publisher

AMER INST PHYSICS, CIRCULATION FULFILLMENT DIV, 500 SUNNYSIDE BLVD, WOODBURY, NY 11797-2999

Categories / Classification

Research Areas: Astronomy & Astrophysics

Web of Science Categories: Astronomy & Astrophysics

Document Information

Document Type: Article

Language: English

Accession Number: WOS:A1979GN09100003

ISSN: 0004-6256

Journal Information

Impact Factor: [Journal Citation Reports®](#)

Citation Network

51 Times Cited

27 Cited References

[View Related Records](#)

[View Citation Map](#)

[Create Citation Alert](#)

(data from Web of Science™ Core Collection)

All Times Cited Counts

- 51 in All Databases
- 51 in Web of Science Core Collection
- 0 in BIOSIS Citation Index
- 0 in Chinese Science Citation Database
- 0 in Data Citation Index
- 0 in SciELO Citation Index

Most Recent Citation

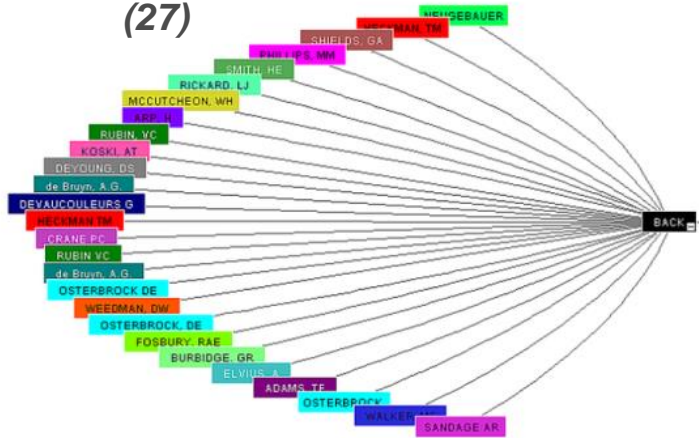
[Grandi, P. ROSAT, ASCA, and OSSE observations of the broad-line radio galaxy 3C 120. ASTROPHYSICAL JOURNAL, OCT 1 1997.](#)

[View All](#)

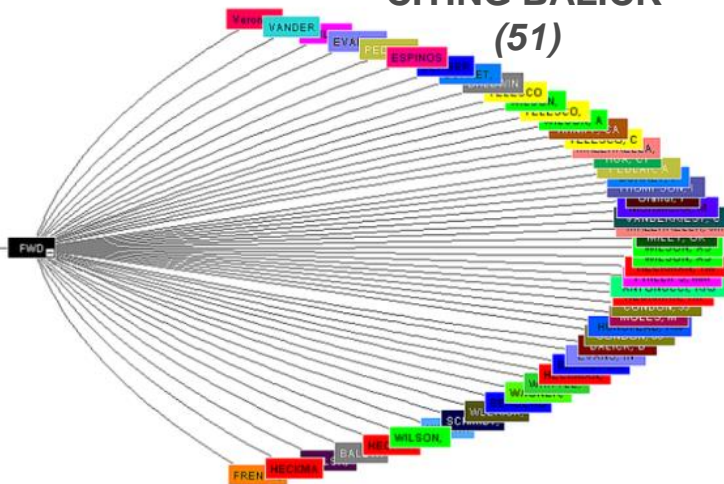
This record is from:
Web of Science™ Core Collection



CITED BY BALICK (27)



CITING BALICK (51)



Source: Web of Science™, <http://thomsonreuters.com/scholarly-scientific-research/>

Record details for the nodes are displayed below (double-click a node to show its details). Click a checkbox below to locate that node above.

<input type="checkbox"/>	Primary Author	Journal Name	Article Title
<input checked="" type="checkbox"/>	BALICK, B	1979-ASTRONOMICAL JOURNAL	EXPLORATORY OBSERVATIONS OF GA...
<input type="checkbox"/>	SANDAGE AR	1961-HUBBLE ATLAS BRIGHT	(article title not available)
<input type="checkbox"/>	BURBIDGE, GR	1963-REVIEWS OF MODERN PHYSICS	EVIDENCE FOR OCCURRENCE OF VIO...
<input type="checkbox"/>	WALKER, MF	1968-ASTROPHYSICAL JOURNAL	STUDIES OF EXTRAGALACTIC NEBUL...
<input type="checkbox"/>	SHIELDS, GA	1972-ASTROPHYSICAL JOURNAL	OPTICAL-SPECTRUM OF SEYFERT-GA...
<input type="checkbox"/>	DEYOUNG, DS	1973-ASTROPHYSICAL JOURNAL	DETECTION OF 21-CENTIMETER HYD...

VLA OBSERVATIONS OF THE SEYFERT-GALAXY NGC 1068	
Number / Title	WOS:A1982PM87100001 / VLA OBSERVATIONS OF THE SEYFERT-GALAXY NGC 1068
Journal Title	ASTROPHYSICAL JOURNAL
Publication Year	1982
Author	VANDERHULST J, HUMMEL E, DICKEY J
Source Abbreviation	ASTROPHYS J
Volume	261
Page	159-163

Access to the World of Scholarship via a Highly Structured Metadata-Rich Database

Web of Science™ InCites™ Journal Citation Reports® Essential Science Indicators™ EndNote™ James Help English

WEB OF SCIENCE™ THOMSON REUTERS™

Search Web of Science™ Core Collection My Tools Search History Marked List

Welcome to the new Web of Science! View a brief tutorial.

Basic Search

seyfert-galaxi

AND

AND

AND

univ* wash*

View Abbreviations List

+ Add Another Field | Reset Form

Basic Search

Author Search

Cited Reference Search

Structure Search

Advanced Search

Topic

Author

Year Published

Address

Organization-Enhanced

Conference

Language

Document Type

Funding Agency

Grant Number

Accession Number

PubMed ID

Search

Click here for tips to improve your search.

TIMESPAN

All years

From 1900 to 2015

What is Web of Science Core Collection Today?

It is a vast multidisciplinary index of standardized metadata - **source items** and **cited references** - from a selected and rigorously curated collection of:

- **12,700** *Top Tier* International and Regional Journals (1900-2015)
 - Science Citation Index Expanded
 - Social Sciences Citation Index
 - Arts & Humanities Citation Index

- **170,000** Conferences (1990-2015)
 - Conference Proceedings Citation Index

- **65,000** Scholarly Books (2005-2015)
 - Book Citation Index – Science
 - Book Citation Index – Social Sciences & Humanities

...that have published

60,000,000 Source Items (Articles, Reviews, Proceedings Papers, Book Chapters etc.)

WoS Core Collection is a True Citation Index

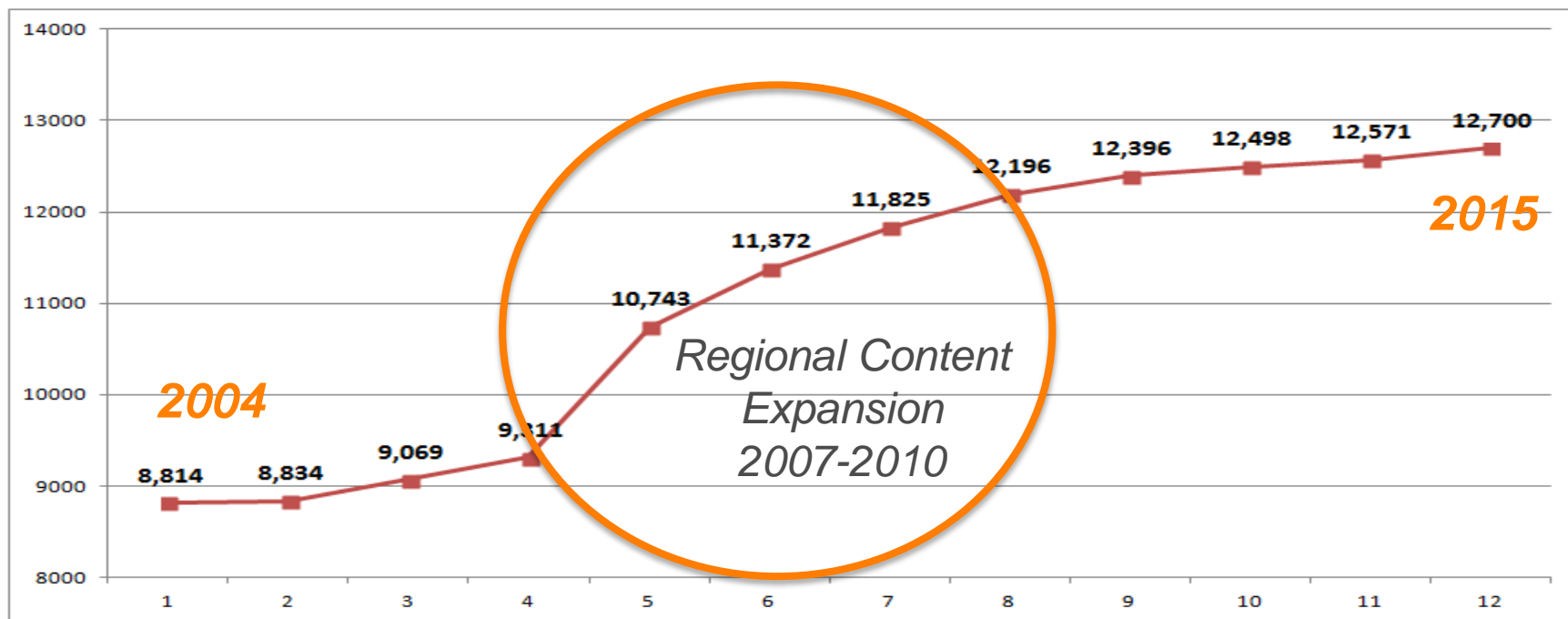
-each and every cited reference from each of the 60 million source items has been indexed !

1 Billion Cited References Indexed

- Millions of cited references link to WoS Core Collection sources
- Many others point to sources outside WoS Core Collection
 - Editorial Development discovers new publications for possible coverage.
 - Users may also identify emerging publications and research fronts.

Consistency and Standardization
in Indexing of all Source Items and
every Cited Reference.

Web of Science Core Collection The Center of Science



...Regional Content Expansion: add 1,600 excellent regional journals

Core Collection will grow slowly.

Exploration into the Research Frontier (outside the Core) will also continue as Web of Science expands its view of the Emerging literature of science.

There is no fee associated with evaluation or coverage in Web of Science !

Science Citation Index >>> - <<<Web of Science Discover - Measure - Evaluate - Connect



...the Center of Science

WEB OF SCIENCE™ THOMSON REUTERS

Search Return to Search Results My Tools Search History Marked List

Full Text Options Look Up Full Text Save to EndNote online Add to Marked List

EXPLORATORY OBSERVATIONS OF GAS NEAR THE NUCLEI OF SEYFERT GALAXIES

By: **BALICK, B** (BALICK, B), HECKMAN, T (HECKMAN, T)

ASTRONOMICAL JOURNAL
Volume: 84 Issue: 3 Pages: 302-310
DOI: 10.1086/112422
Published: 1979
[View Journal Information](#)

Author Information

AMER INST PHYSICS, CIRCULATION FULFILLMENT DIV, 500 SUNNYSIDE BLVD, WOODBURY, NY 11797-2999

Categories / Classification
Research Areas: Astronomy & Astrophysics
Web of Science Categories: Astronomy & Astrophysics

Document Information
Document Type: Article
Language: English
Accession Number: WOS:A1979GN09100003
ISSN: 0004-6256

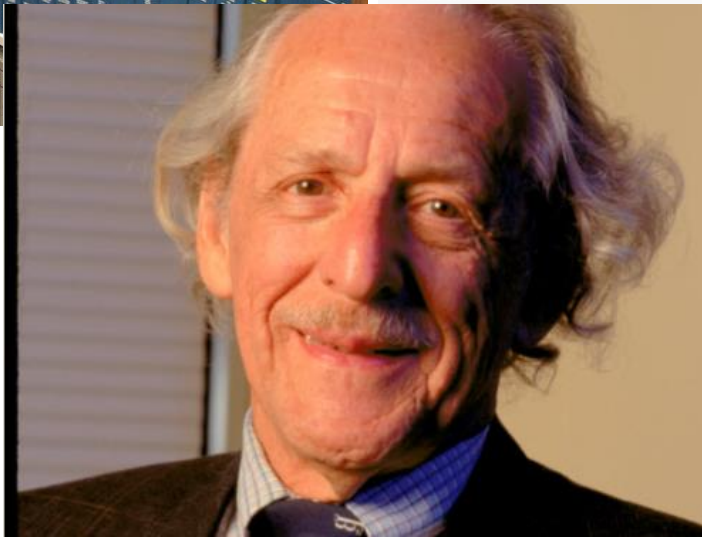
Citation Network

51 Times Cited
27 Cited References
[View Related Records](#)
[View Citation Map](#)
[Create Citation Alert](#)
(data from Web of Science™ Core Collection)

All Times Cited Counts
51 in All Databases
51 in Web of Science Core Collection
0 in BIOSIS Citation Index
0 in Chinese Science Citation Database
0 in Data Citation Index
0 in ScELO Citation Index

Most Recent Citation
Grandi, P. ROSAT, ASCA, and OSSE observations of the broad-line radio galaxy 3C 120. ASTROPHYSICAL JOURNAL, OCT 1 1997.
[View All](#)

This record is from:
Web of Science™ Core Collection



Thank you.

Visit Thomson Reuters at

<http://www.thomsonreuters.com/>

