

# Nuclear Physics, the Core of Matter, the Fuel of Stars

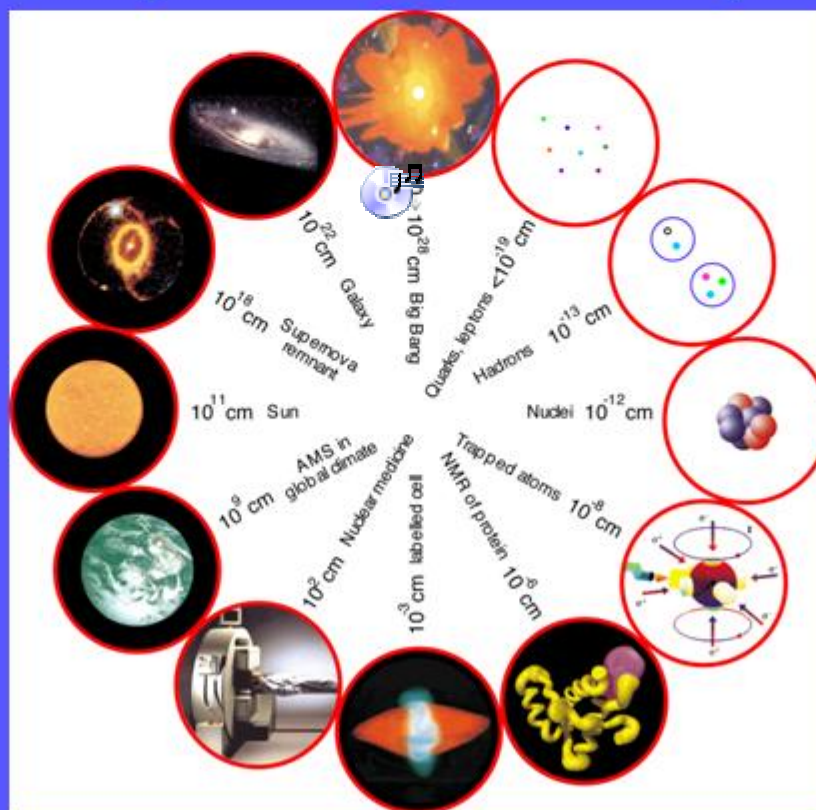
## A symposium surveying the future of nuclear physics and celebrating 50 years of John Schiffer's research at Argonne

September 21-22, 2006

Argonne National Laboratory

Speakers Include:

G. Cates  
O. Civitarese  
S. Freedman  
W. Henning  
F. Iachello  
D. Kovar  
Z. Lu  
A. Macchiavelli  
B. Mottelson  
T. Otsuka  
J. Schiffer  
M. Turner  
W. Zajc



The Organizing Committee:

A. Bernstein	T. L. Khoo
B. Fletcher	J. A. Nolen
D. F. Geesaman	S. C. Pieper
R. V. F. Janssens	K. E. Rehm

Symposium website:

<http://www.phy.anl.gov/NPSymposium/>

# Nuclear Physics, the Core of Matter, the Fuel of Stars

## A symposium surveying the future of nuclear physics and celebrating 50 years of John Schiffer's research at Argonne

September 20-22, 2006

### September 20, 2006 - Wednesday

19:30-21:00      **Reception at the Argonne Guest House**  
Bus service from the Hotel at 19:15 and 20:00  
Return bus service from the Guest House to the Hotel at 20:30 and 21:00

### September 21, 2006 - Thursday

08:00-09:00      Registration & Coffee  
Bus service from the Hotel at 8:00 and 8:30

**Session 1:**  
**(Rolf Siemssen – Chair)**  
09:00-09:15      **Robert Rosner, Don Geesaman: Welcome & Introduction**  
09:15-09:50      **Ben Mottelson: The basis for independent particle motion in atomic nuclei revisited**  
09:50-10:00      Discussion  
10:00-10:30      **Coffee Break**

**Session 2:**  
**(Rick Casten – Chair)**  
10:30-11:05      **Takaharu Otsuka: Structure of exotic nuclei and the nuclear force**  
11:05-11:15      Discussion  
11:15-11:50      **Augusto Macchiavelli: Transfer reactions and nuclear structure: The road ahead**  
11:50-12:00      Discussion  
12:00-12:35      **Franco Iachello: Nuclei: A testing ground for fundamental tests in physics**  
12:35-12:45      Discussion

**Session 3:**  
**(Linwood Lee – Chair)**  
14:00-14:35      **Stuart Freedman: “I am not very happy about this” and the search for exotica in science**  
14:35-14:45      Discussion  
14:45-15:20      **Oswaldo Civitarese: A critical review and the future of double-beta decay theoretical studies**  
15:20-15:30      Discussion  
15:30-16:00      **Coffee Break**

**Session 4:**  
**(Jerry Draayer – Chair)**  
16:00-16:35      **Zheng-Tian Lu: Helium: probing the exotic and searching for the strange**  
16:35-16:45      Discussion  
16:45-17:20      **Gordon Cates: Nuclear matter and electromagnetic probes in the 21<sup>st</sup> century**  
17:20-17:30      Discussion  
18:30              **Banquet at the Argonne Guest House**  
Bus service from the Hotel at 18:00  
Bus from the conference site at 18:15

## ***Nuclear Physics, the Core of Matter, the Fuel of Stars***

***A symposium surveying the future of nuclear physics and celebrating 50 years of  
John Schiffer's research at Argonne***

**September 20-22, 2006**

### **September 22, 2006 – Friday**

#### **Session 5: (Peter Bond – Chair)**

**Bus service from the Hotel at 8:15**

09:00-09:35 **William Zajc: New dimensions in relativistic heavy-ion collisions**

09:35-09:45 Discussion

09:45-10:20 **Walter Henning: The landscape of nuclei: How far, how soon?**

10:20-10:30 Discussion

10:30-11:00 **Coffee Break**

#### **Session 6: (Sam Austin – Chair)**

11:00-11:35 **Michael Turner: Nuclear astrophysics: From the beginning of time until the end of the Universe**

11:35-11:45 Discussion

11:45-12:20 **Dennis Kovar: The future of the US nuclear physics program: A view ahead of the  
Long Range Plan exercise**

12:20-12:30 Discussion

12:30 **John Schiffer: Perspectives**

13:00 Adjourn

**Bus service to the Hotel if necessary**



*Above*, the four physicists at the Atomic Energy Research Establishment, Harwell, who have carried out a new test of Einstein's general theory of relativity : left to right, Dr. A. B. Whitehead (Canada), Dr. T. E. Cranshaw (U.K.), Dr. J. P. Schiffer (U.S.A.), and Dr. H. J. Hay (New Zealand).



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Institute of Physics

Arial view of Bldg.  
203 - 1954



THE  TIMES

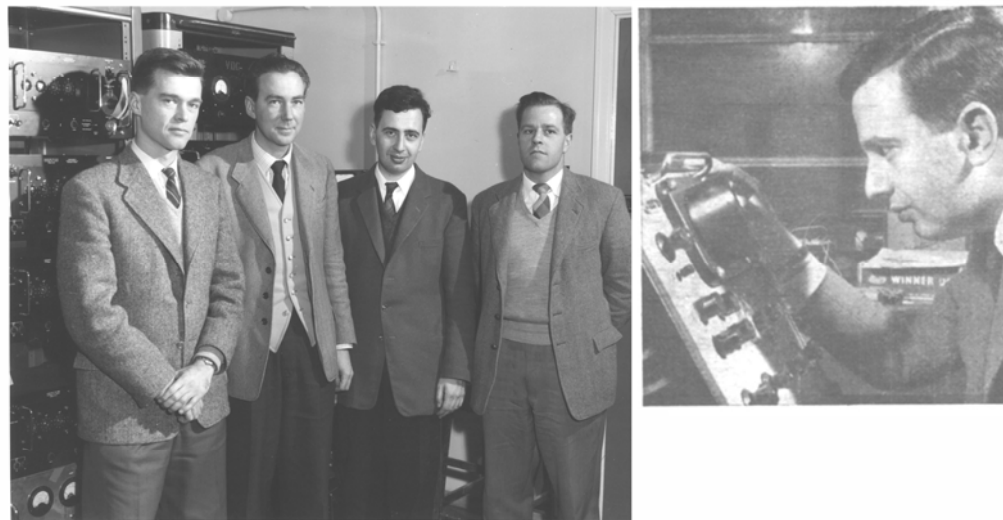
# SCIENCE

REVIEW

QUARTERLY—No. 35

SPRING 1960

PRICE 6d



*Above, the four physicists at the Atomic Energy Research Establishment, Harwell, who have carried out a new test of Einstein's general theory of relativity: left to right, Dr. A. B. Whitehead (Canada), Dr. T. E. Cranshaw (U.K.), Dr. J. P. Schiffer (U.S.A.), and Dr. H. J. Hay (New Zealand). Right, Dr. Schiffer is adjusting the timing of electronic switching between counters in relation to the up and down movement of the gamma ray source which was iron-57. A water tower provided the difference in height needed.*



**PHYSICS BLDG. 1954**



Bldg. 203 - 1954





Bldg. 203 -  
1957







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Institute of Physics



1987



1975







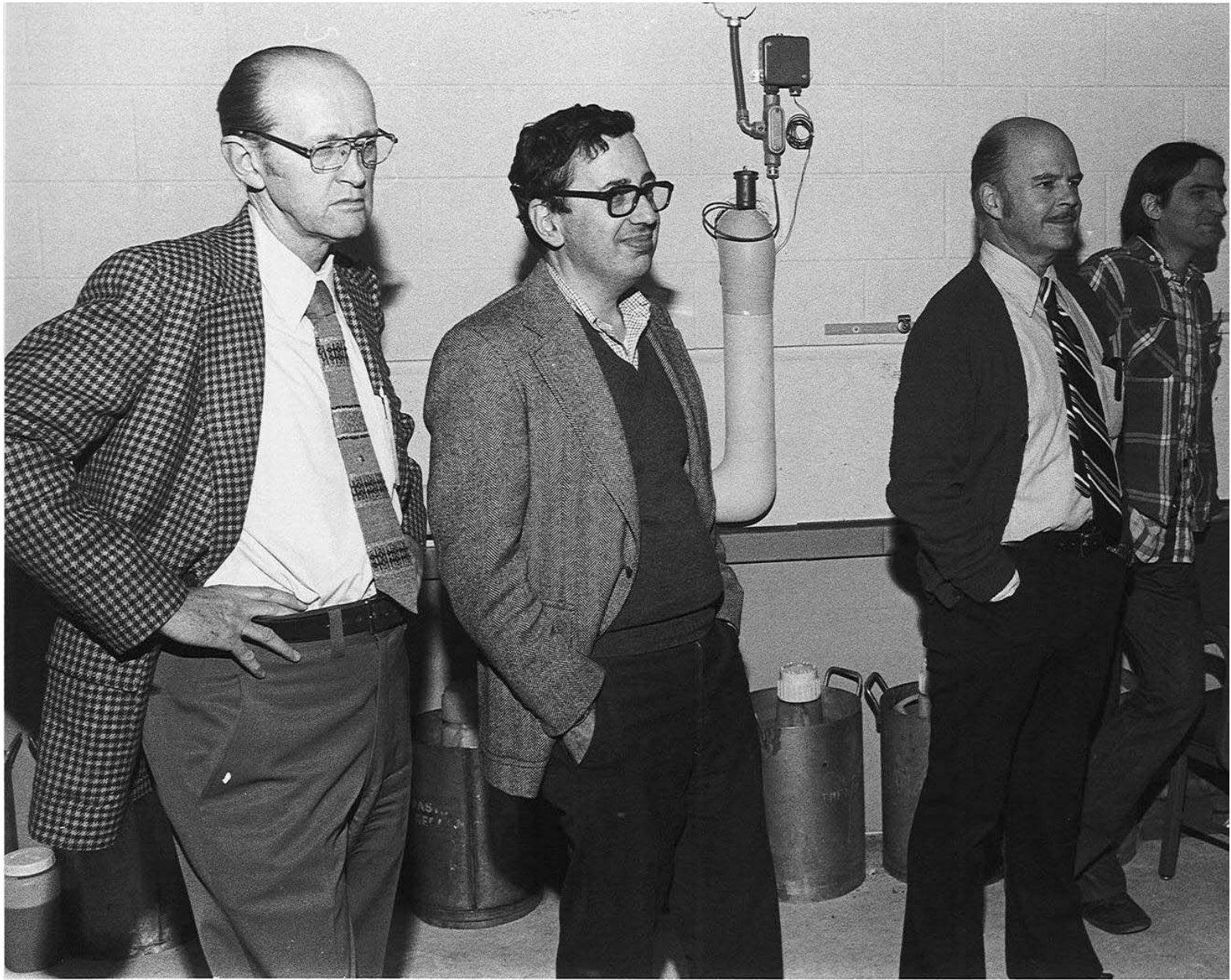
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Institute of Physics

1970(s)

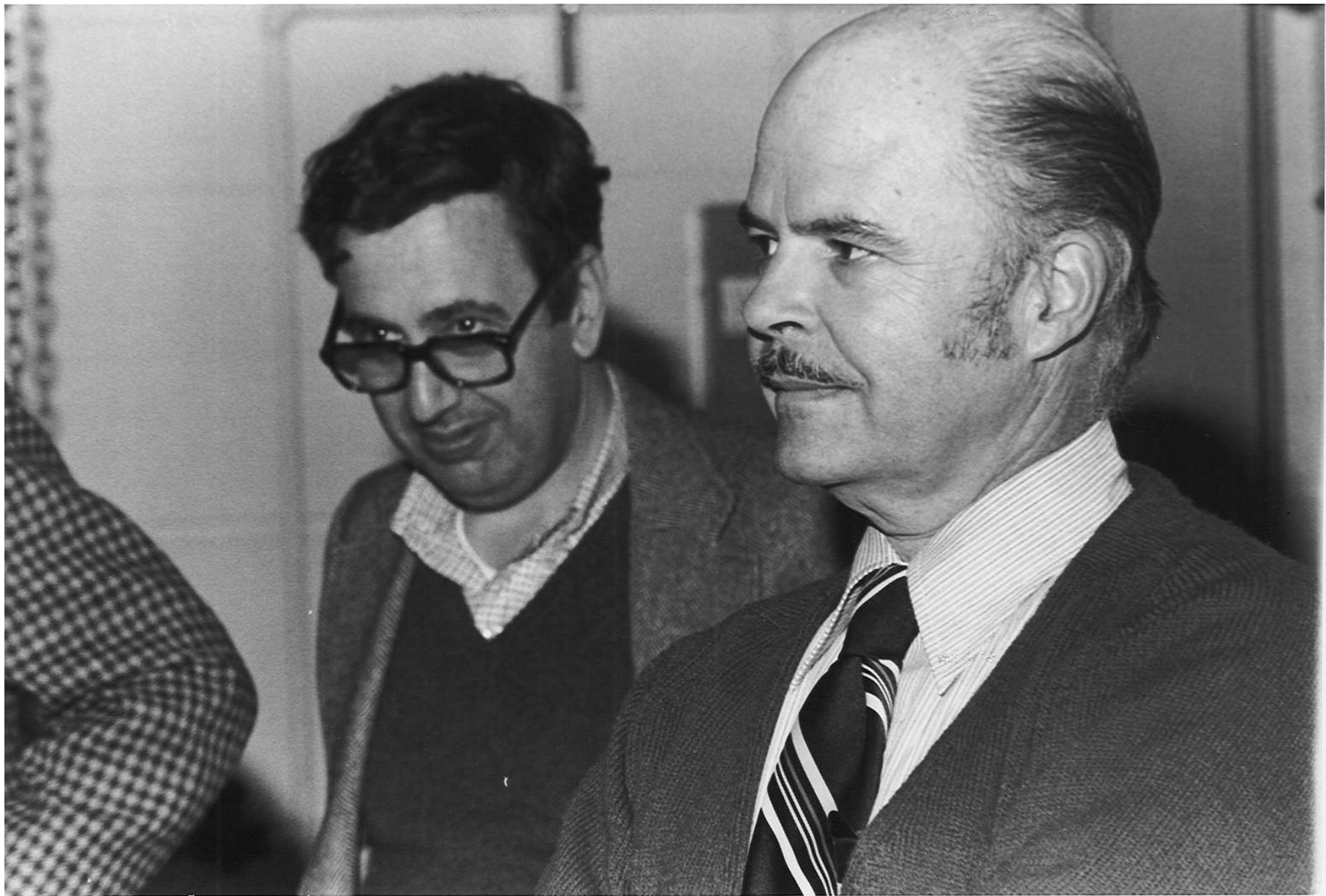
1978







1978



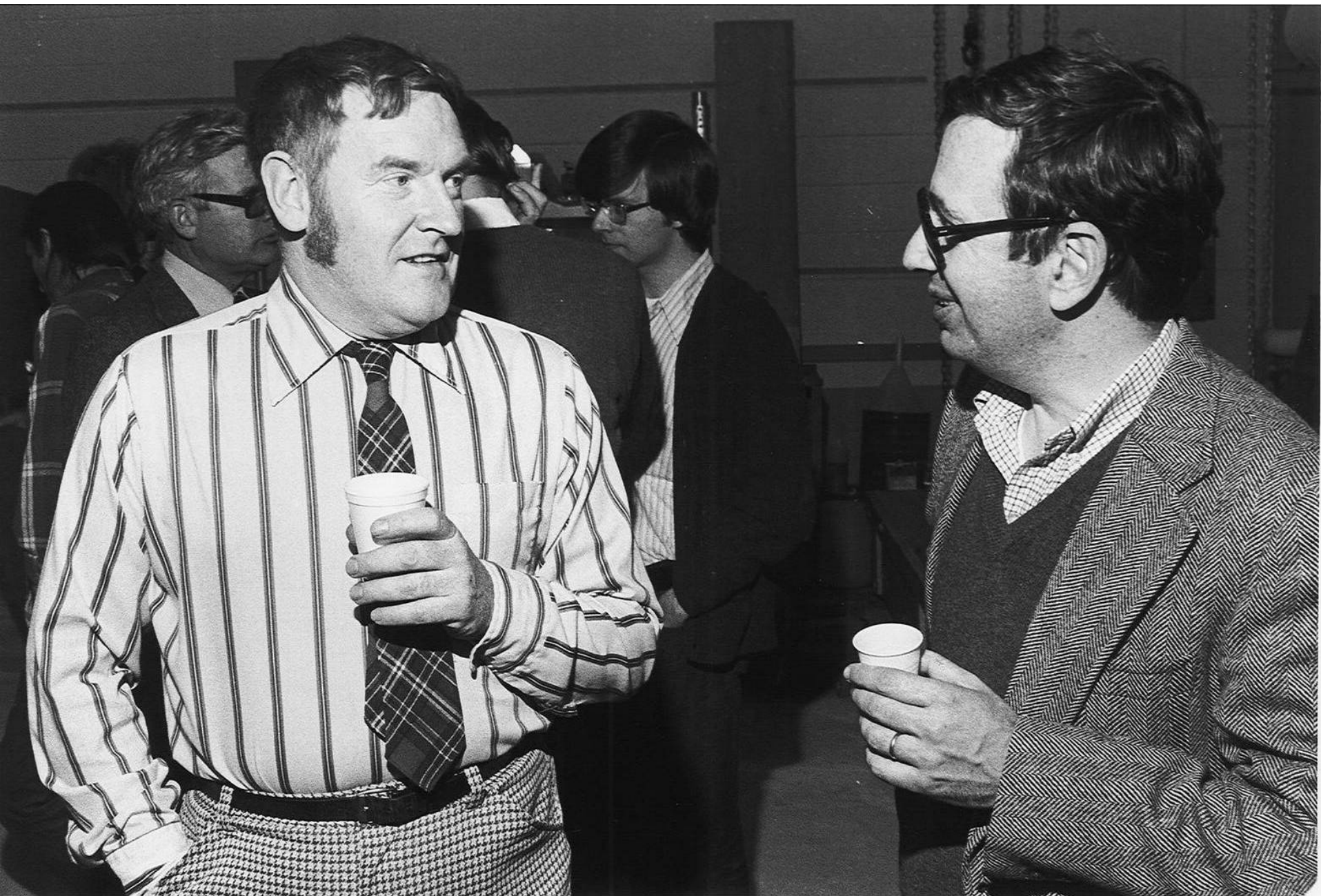
1978



1978



1978

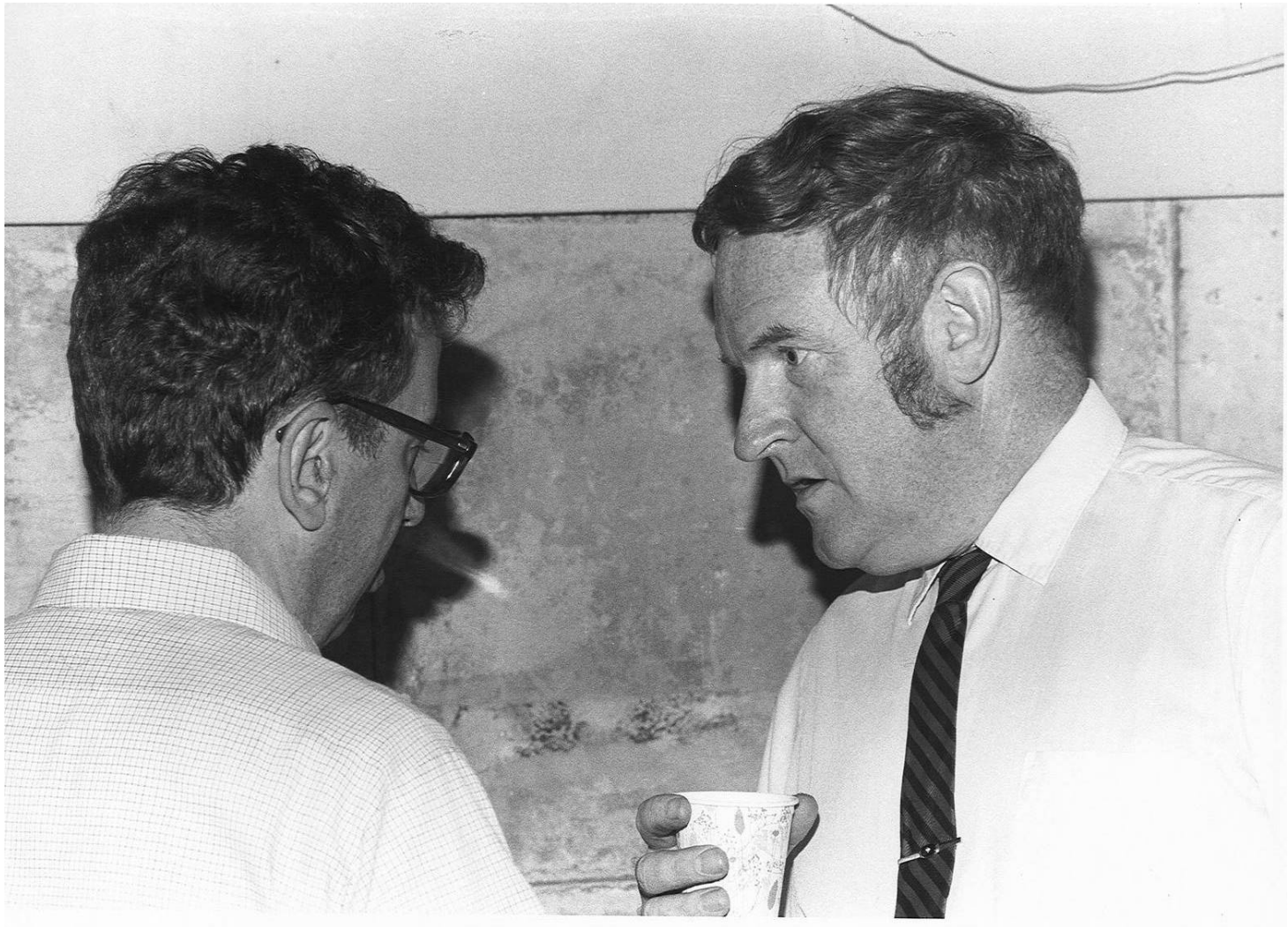


1978





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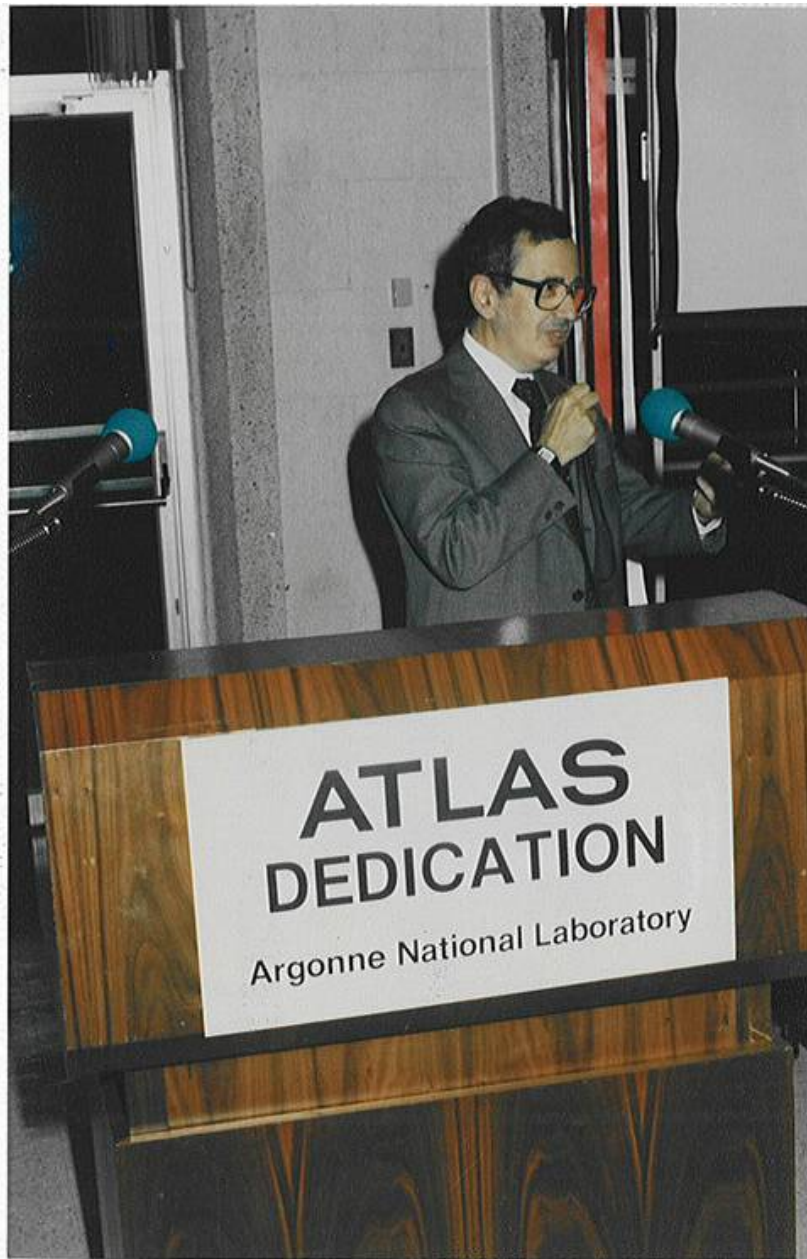


1982

1980







1985





1985



1998



1998



1998



1999



**JOHN P. SCHIFFER  
SYMPOSIUM**

September 1996

**REGISTRATION**

Science Serving Society







# Colloquia, Fall 2001



John with Juergen Kluge



John with Don and John Harris



John with Lowell and  
Hamish Robertson

# John at the 9/8/2001 Low Energy Review



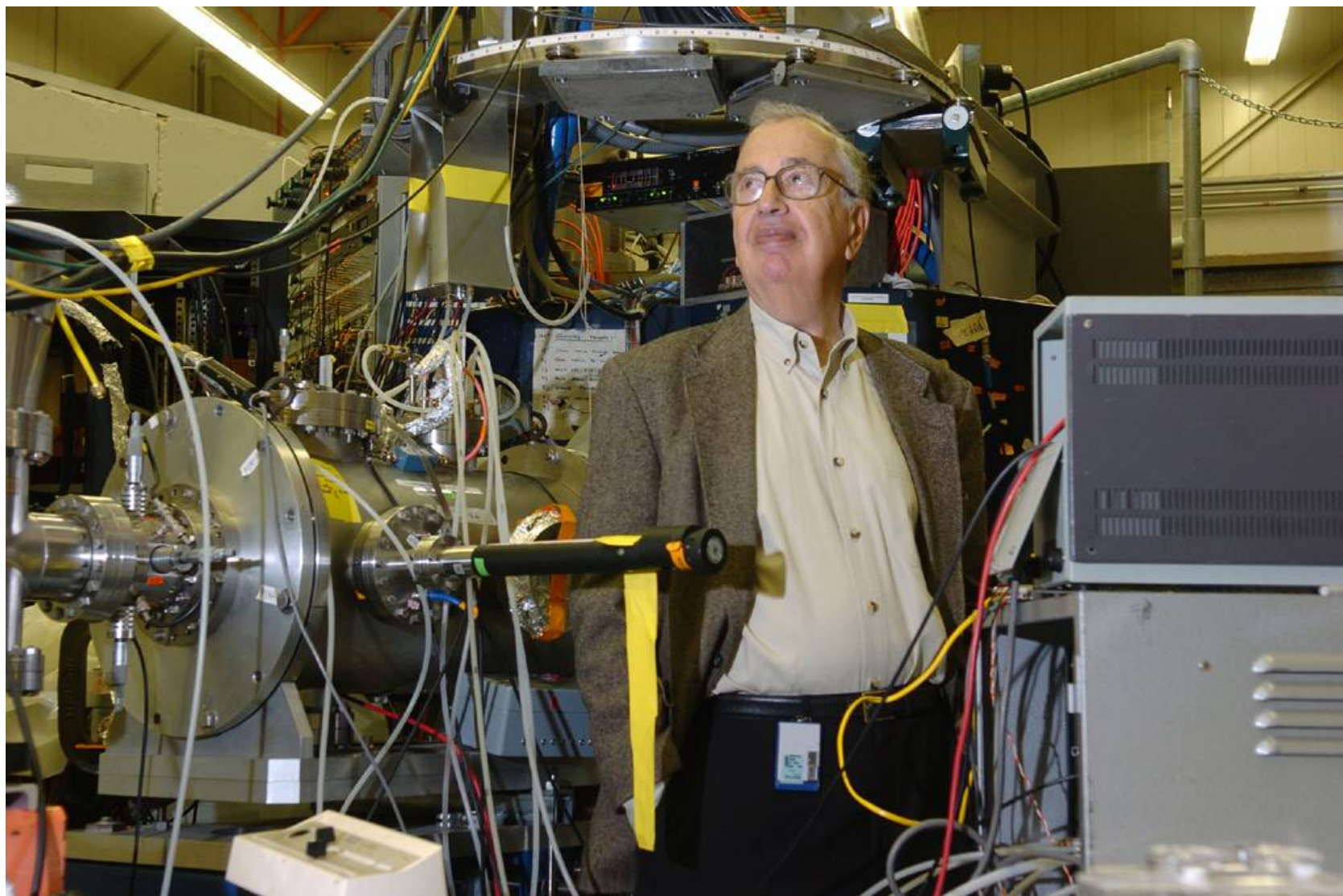
2006





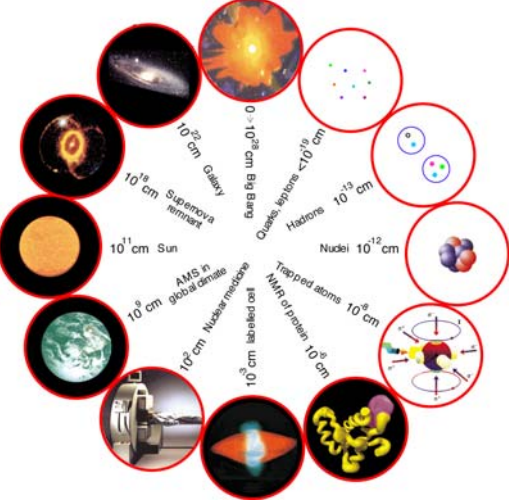
2006

2006



2006





----- Original Message -----

From: "Prof.Dr.Peter von Brentano" <[vonBrentano@t-online.de](mailto:vonBrentano@t-online.de)>  
 To: <[npsymposium@anl.gov](mailto:npsymposium@anl.gov)>; <[brentano@ikp.uni-koeln.de](mailto:brentano@ikp.uni-koeln.de)>  
 Sent: Friday, September 01, 2006 4:03 AM  
 Subject: Re: Argonne Symposium - September 21-22, 2006: Final Announcement

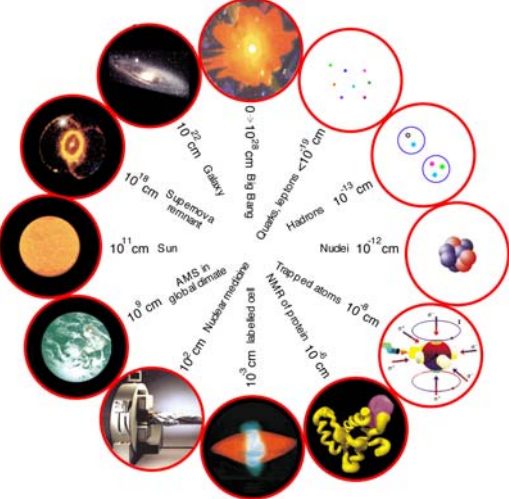
>  
 > Dear Colleague,  
 >  
 > I wish you god luck for the great conference "Nuclear  
 > Physics, the Core of Matter, the Fuel of Stars: A symposium celebrating 50  
 > years of John Schiffer's research at Argonne" to be held at Argonne  
 > National Laboratory on September 21-22, 2006.  
 >  
 > This conference honors John Schiffer , which he richly deserves.  
 > I would love to attend. Unfortunately I cant come , however.  
 >  
 > So I send good wishes  
 >  
 > **Peter von Brentano**  
 >

----- Original Message ----- From: "Noemie Koller" <[nkoller@physics.rutgers.edu](mailto:nkoller@physics.rutgers.edu)>  
 To: <[npsymposium@anl.gov](mailto:npsymposium@anl.gov)>  
 Sent: Thursday, August 24, 2006 11:15 AM  
 Subject: Re: Argonne Symposium - September 21-22, 2006: Final Announcement

> Dear Barbara,  
 >  
 > I am sorry I will not be abl to attend the  
 > Schiffer Symposium. I will write him a presonal note.  
 >  
 > Thank you for the announcement.  
 >  
 > I hope you are well and smiling as always,  
 >  
 > Noemie

>  
 > -----  
 > -----  
 >

> **Noemie Koller** [nkoller@physics.rutgers.edu](mailto:nkoller@physics.rutgers.edu)  
 > **Professor of Physics**  
 > **Department of Physics and Astronomy** Phone: 1-732-445-2525  
 > **Rugers University** Sec'y: 1-732-445-2402  
 > **New Brunswick, NJ 08903** FAX : 1-732-445-4343  
 >



----- Original Message ----- From: "Jolie Cizewski" <[cizewski@physics.rutgers.edu](mailto:cizewski@physics.rutgers.edu)>  
 To: <[npsymposium@anl.gov](mailto:npsymposium@anl.gov)>  
 Sent: Saturday, August 19, 2006 1:34 PM  
 Subject: Re: Argonne Symposium - September 21-22, 2006: Final Announcement

>I regret that I will miss this meeting - I had previous commitments  
 > before I heard of the meeting.  
 >  
 > **Jolie**  
 >

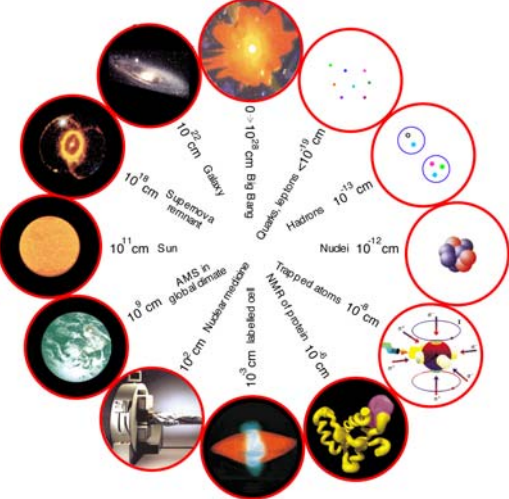
----- Original Message ----- From: "Arturo Menchaca Rocha" <[menchaca@fisica.unam.mx](mailto:menchaca@fisica.unam.mx)>  
 To: <[npsymposium@anl.gov](mailto:npsymposium@anl.gov)>  
 Sent: Monday, August 21, 2006 9:41 AM  
 Subject: Re: Argonne Symposium - September 21-22, 2006: Final Announcement

> Dear Barbara,  
 >  
 > Unfortunately I am unable to attend this important symposium commemorating  
 > 50 years of John Schiffer's research at Argonne. Please give Prof. Schiffer  
 > a message of admiration on his first 50 years at Argonne from us all at the  
 > UNAM's Physics Institute.  
 > Best regards,  
 >  
 > **Arturo Menchaca-Rocha**  
 > **Director**  
 > **IFUNAM (Mexico)**  
 >

----- Original Message ----- From: "Bruce Barrett"  
 <[bbarrett@physics.arizona.edu](mailto:bbarrett@physics.arizona.edu)>  
 To: <[npsymposium@anl.gov](mailto:npsymposium@anl.gov)>  
 Cc: "Bruce Barrett" <[bbarrett@physics.arizona.edu](mailto:bbarrett@physics.arizona.edu)>  
 Sent: Friday, August 18, 2006 3:34 PM  
 Subject: Re: Argonne Symposium - September 21-22, 2006: Final  
 Announcement

> Dear Ms. Fletcher  
 >  
 > Unfortunately I will not be able to attend this symposium in honor of  
 > John Schiffer due to a previous commitment on September 21-22,  
 > 2006. I  
 > am sure that it will be an outstanding gathering.  
 >  
 > With my best regards, **Bruce Barrett**  
 >





----- Original Message -----

**From:** [Erb, Karl A.](mailto:Erb, Karl A.)

**To:** [npsymposium@anl.gov](mailto:npsymposium@anl.gov)

**Sent:** Monday, July 17, 2006 1:25 AM

**Subject:** RE: Argonne National Laboratory Symposium - September 21-22, 2006

Barbara, please convey my best regards to John. Unfortunately, I won't be able to attend but hope he will consider me to be there in spirit.

Karl

----- Original Message ----- From: "Achim Richter" <[richter@ikp.tu-darmstadt.de](mailto:richter@ikp.tu-darmstadt.de)>

To: <[npsymposium@anl.gov](mailto:npsymposium@anl.gov)>

Cc: <[npsymposiumlist@phy.anl.gov](mailto:npsymposiumlist@phy.anl.gov)>

Sent: Thursday, August 10, 2006 12:14 PM

Subject: Re: Argonne National Laboratory Symposium - September 21-22, 2006

> Dear colleagues on the organizing committee,

>

> thank you for sending me the second announcement of the symposium on

> September 21-22, 2006 honouring John Schiffer.

> I appreciate John and his seminal work very much and I am grateful for

> what I learned from him, and I value particularly his friendship over

> many years. Therefore I regret very much not to be able to participate

> in the symposium. I am presently being Tage Erlander Guest Professor in

> Sweden and unfortunately have unmovable commitments during the time of

> the symposium.

>

> I am sure that you can look forward to a great couple of days.

>

> My best wishes,

> **Achim**

# PHYSICS



Don't count the years - count the memories!

John  
*Congratulations*

Best Wishes  
from all your friends and colleagues

