

COLLOQUIUM

Dr. Grote Reber
Research Corp., Tasmania

"THE EARLIEST DAYS OF RADIO ASTRONOMY"

4:15 p.m., Room 334 Physics
Monday, April 5, 1976

The first detection of radio waves from outside the earth was made in 1932 by a radio engineer named Karl Jansky who was studying the nature of the interference occurring on the recently inaugurated trans-Atlantic radio-telephone service. Despite his recognition of the importance of his discovery and many attempts to interest both radio engineers and optical astronomers, only one other man did any significant work prior to World War II. He was Grote Reber, a radio engineer who by himself and on his own time in 1937 constructed a 30-foot radio "dish" in his backyard in Wheaton, Illinois. An idea of the precocious nature of this project can be gained from noting that this antenna remained the largest microwave radio telescope in the world for the next fifteen years.

Reber followed up Jansky's work on the "cosmic static" from the Milky Way, showing that it was enhanced in certain regions of the sky, regions which we now call radio sources. He also made one of the first detections of the sun and was the first to suggest that the cosmic static could be the result of thermal bremsstrahlung emitted by a hot plasma between the stars. Only at the close of the war were any other radio observations published; thus had Reber singlehandedly for a decade carried radio astronomy from its infancy to adolescence.

Grote Reber still practices his unique brand of "solitary science" on the island of Tasmania, where a "hole" in the ionosphere allows him to do radio astronomy at frequencies lower than any one else dares. In this colloquium, however, he will relate his experiences of those early days in Wheaton, Illinois, leaving his current research results to the Astronomy Colloquium on Wednesday, 7 April.

Physics Department

UNIVERSITY OF WASHINGTON

SEATTLE, WASHINGTON 98195

LIST OF SPEAKERS FOR THE WEEK OF APRIL 5 TO 9

- MONDAY, APRIL 5 -

4:15 p.m.
Room 334 Physics

COLLOQUIUM---Dr. Grote Reber, Research Corp.,
Tasmania

"THE EARLIEST DAYS OF RADIO ASTRONOMY"

- TUESDAY, APRIL 6 -

12:30 p.m.
Room 107 Physics

SPACE PHYSICS SEMINAR---A Panel Discussion Including
Prof. K.C. Clark, Prof. J. J. Lord, Prof. G. K. Parks,
et al, of the Space Sciences Division, University of
Washington

"EXCITING NEWS IN THE SPACE SCIENCES"

1:30 p.m.
NPL Conf. Room

NUCLEAR PHYSICS SEMINAR---Dr. John Calarco, Stanford

" I. THE STANFORD SUPERCONDUCTING ELECTRON LINAC:
OPERATIONAL STATUS AND PROPOSED EXPERIMENTS

II. ^{90}Zr ANALOG STATES IN (\vec{p}, γ) "

3:30 p.m.
Room 334 Physics

THEORETICAL SEMINAR---Dr. Y. Frishman, Cal. Tech. &
Weizmann Institute

"FIELD THEORIES IN 2 DIMENSIONS"

- FRIDAY, APRIL 9 -

2:30 p.m.
Room 314 Physics

SOLID STATE-LOW TEMPERATURE---Prof. John Rehr,
University of Washington

"HIGHLIGHTS OF THE MARCH A.P.S. MEETING IN ATLANTA,
GEORGIA"

- MONDAY, APRIL 12 -

4:15 p.m.
Room 334

COLLOQUIUM---Prof. Ch. Perou, University of Berne,
Switzerland, now Visitor at S.L.A.C.

TO BE ANNOUNCED