

## Diagram referenced as "51-50 and sphere of reflection"

### Contributors

Fuller, Watson, 1935-

### Publication/Creation

January 1965

### Persistent URL

<https://wellcomecollection.org/works/vh463ru6>

### License and attribution

You have permission to make copies of this work under a Creative Commons, Attribution, Non-commercial license.

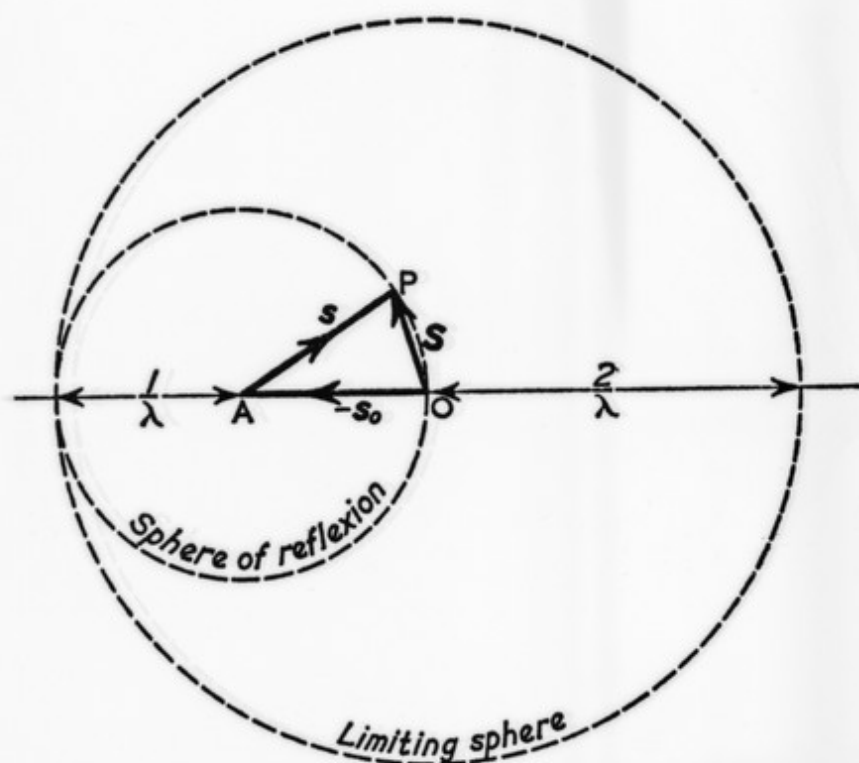
Non-commercial use includes private study, academic research, teaching, and other activities that are not primarily intended for, or directed towards, commercial advantage or private monetary compensation. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

Limiting sphere. It is useful at this stage to consider the relationship between the vector  $S$  which was introduced in section 2 and the space in which the Fourier transform exists. The vector  $S$  is defined as  $s - s_0$  where  $s_0$  and  $s$  are vectors of modulus  $\frac{1}{\lambda}$  in the



The relationship between the reciprocal vectors, the sphere of reflexion and the limiting sphere

radius  $\frac{2}{\lambda}$  - the limiting sphere, as it is called (Bernal, 1920).

The limiting sphere determines the extent of a Fourier transform that can be observed with radiation of a given wavelength. The Fourier transform was introduced as a function giving, in amplitude