

**Space Science Seminar**  
**Thursday, 2014 May 1 10:30am**  
**NSSTC/4078**

**OB Associations, Runaway O-stars, High Mass X-ray  
Binaries and Double Neutron Stars: The Legacy of  
Adriaan Blaauw (1914-2011) at his Hundredth Birthday**

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This year we commemorate the 100th birthday of Adriaan Blaauw (1914-2011) who in the early 1950s discovered the expansion of OB associations. From the measured expansion velocities he derived ages between a few million years and a few tens of millions of years, demonstrating for the first time that also nowadays stars are still being born. He also discovered that some 20 to 30 per cent of the O-stars are “runaway stars” with excess space velocities between 50 and 150 km/s, which were ejected from their OB-associations only a few million years ago. In 1961 he suggested that these high velocities are due to the unbinding of a binary in which the more massive star exploded as a supernova, releasing the other star with its orbital velocity. This idea later was crucial for understanding the formation of the High-Mass X-ray Binaries and double neutron stars.

A brief overview is given of Blaauw’s career, who in Leiden in the 1930s was a student of de Sitter, Hertzsprung and Oort, fulfilled professorships in Chicago, Groningen and Leiden, was director of the European Southern Observatory and President of the International Union, leading China to the membership of this Union.

<http://solarscience.msfc.nasa.gov/SpaceScienceSeminars.html>