



light echoes of  $\eta$ -Carinae







0 3:03 17  
2ND 10  
END 48 11

FOX  
HD

2ND & 8

TOP PERFORMERS

11:3

QB A. DALTON 11-18, 88 YDS, TD  
RB A. DALTON 3 RUSH, 35 YDS  
WR J. GRESHAM 3 REC, 35 YDS, TD

ANFLREDZONE

HD

NFL Jaguars 7

Titans 17

2ND 5:39

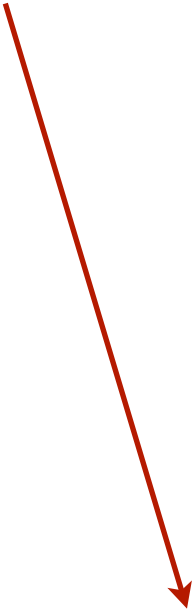
Ball on TEN 5

NFL ON FOX















what are light echoes?

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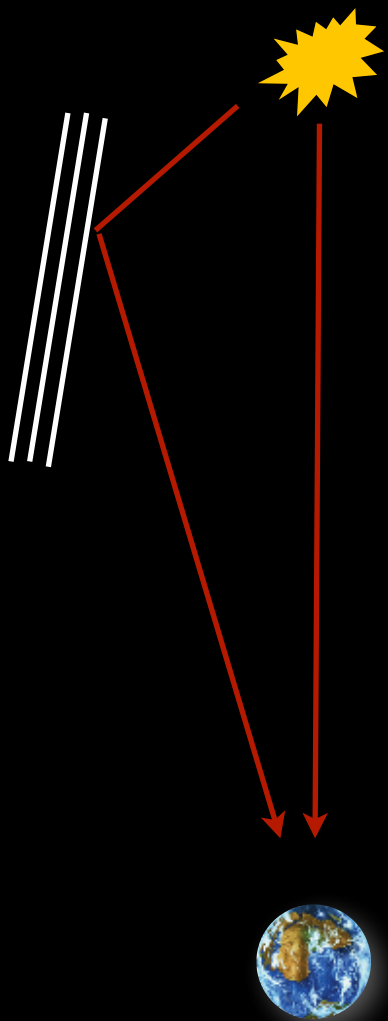
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# what are light echoes?

light from an astrophysical transient bounces off dust and reaches earth at a delay from when the original event was observable



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# what are light echoes?

Light echo geometry: the arrival time ellipsoid



**20 year  
light echoes**

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