

# The ADVENTURES — OF — TALMA \* ALMA

— TODAY —  
"THE SNOW LINE"





ATACAMA DESERT, CHILE

What a great idea to light a bonfire and enjoy the night sky!



Can you see that group of stars?  
It is the Orion constellation

It is so bright!



ALMA was able to observe  
a unique star there

What is so special about it?



When we observed it, we were  
able to see a phenomenon  
known as the "snow line"

What is that?





Young stars, just a few million years old, are surrounded by a very cold disc of dust and gas

V883 Orionis

Where the planets and their moons are formed!

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"Snow Line"

Exactly. The snow line separates the disc area with liquid water or steam and the ice area



It's that same thing that happens with this bonfire: the heat from the fire melts the snow up to a certain distance


And is this distance always the same?

It depends. If it has more to feed on, pulling its own dust and gas by gravity,

its temperature will rise, and the snow line will move farther away. This is why we were able to see it in this star for the first time


The light's intensity is beautiful






Normally, this is not  
a phenomenon that we  
can see in all stars

Why?



Because normally the  
snow line is very close  
to the stars, which  
blinds the telescopes



That is why  
this is a very  
special star

The End



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