

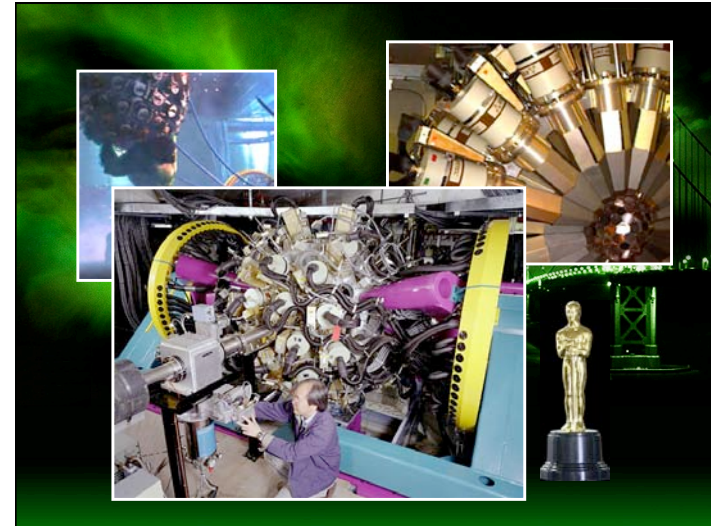
Fooling with Physics

Fooling with Physics

Dr Steve Barrett



9 Dec 2008



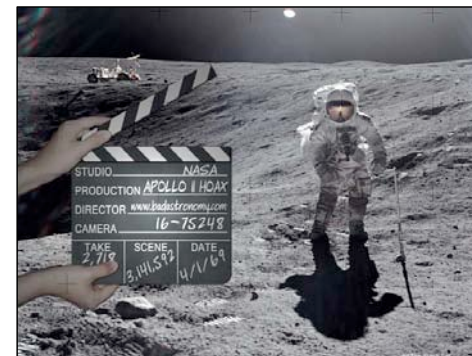
Hollywood



Fooling with Physics / Hollywood

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The Great Moon Hoax



Fooling with Physics / Moon Hoax

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Fooling with Physics

So Many Anomalies...

Radiation from the Van Allen belts
Why no blast crater below the Lunar Module ?
Why no flame from the Lunar Module rocket engine ?
In photographs supposedly taken on the lunar surface...
Why are the shadows “filled in” ?
Shadow angles are inconsistent
Shadow lengths are inconsistent
No stars appear in the sky
Position of the Earth in the sky is incorrect
Same background appears in images of different areas
... and dozens or hundreds more

Fooling with Physics / Moon Hoax

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What's the Problem?



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Studio Set

Studio set
“background painting”
used twice?



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Where's the Light Source?

If the sun is the only light source, why
is anything visible when in shadow?



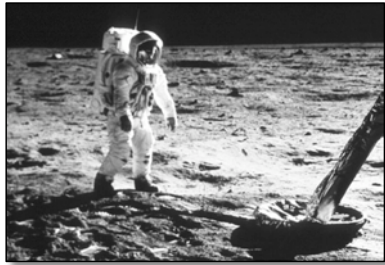
Fooling with Physics / Moon Hoax / Shadows

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Fooling with Physics

Why Footprints?

Why does an astronaut leave footprints but the lander's footpad does not sink into the soil?



Fooling with Physics / Moon Hoax / Soil

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Sinking in the Soil

Why does the lander's footpad not sink into the soil?
Sometimes it does!

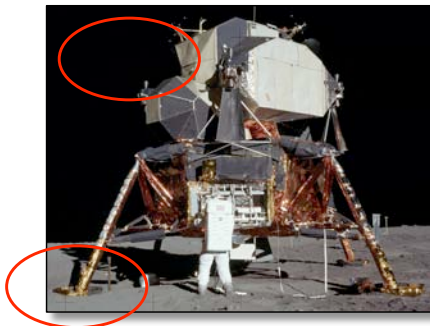


Fooling with Physics / Moon Hoax / Soil

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More Evidence...?

Why are there no stars in the sky?



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Sinking in the Soil

Why is there no 'blast' crater below the engine?



Fooling with Physics / Moon Hoax / Soil

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Sinking in the Soil

Sometimes there *is* a small 'blast' crater



Fooling with Physics / Moon Hoax / Soil

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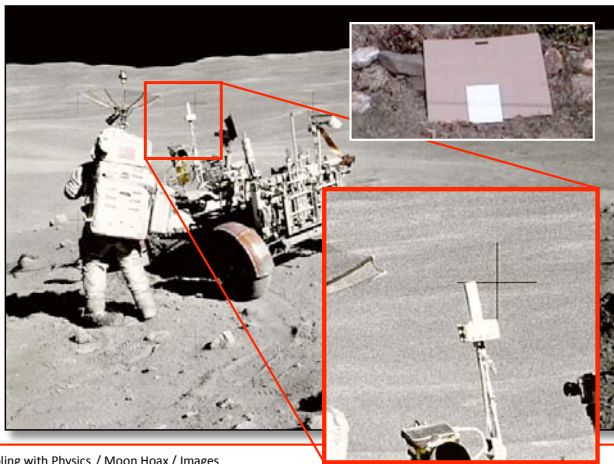
Cameras



Fooling with Physics / Moon Hoax / Soil

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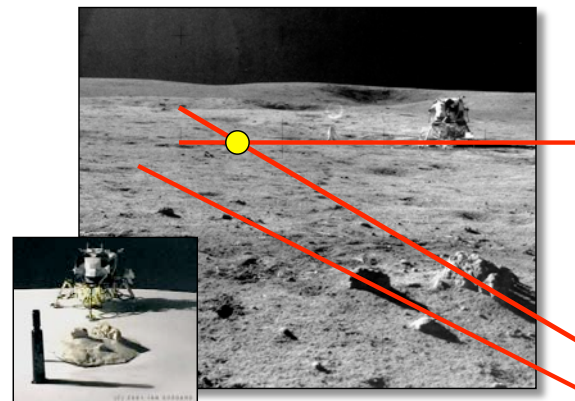
Impossible Images



Fooling with Physics / Moon Hoax / Images

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Impossible Shadows



Fooling with Physics / Moon Hoax / Shadows

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Fooling with Physics

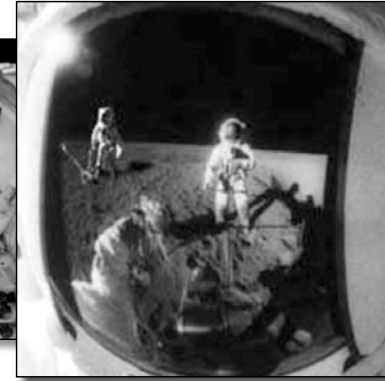
What's the Problem?



Fooling with Physics / Moon Hoax

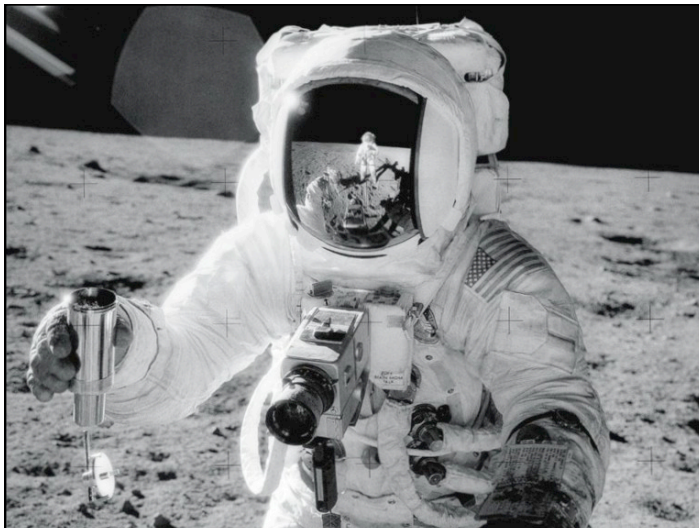
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Take a Closer Look



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The Great Moon Hoax



Take 1



Take 2

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What's the Point?

Why are there **so many** Moon Hoaxers?

Do they **really** believe their “scientific evidence”?

Most arguments can be countered with some basic physics...
...so analysis of the “evidence” makes a good science lesson.

Thinking about why things (might) behave differently on the Moon can help teach “Physics on Earth”.

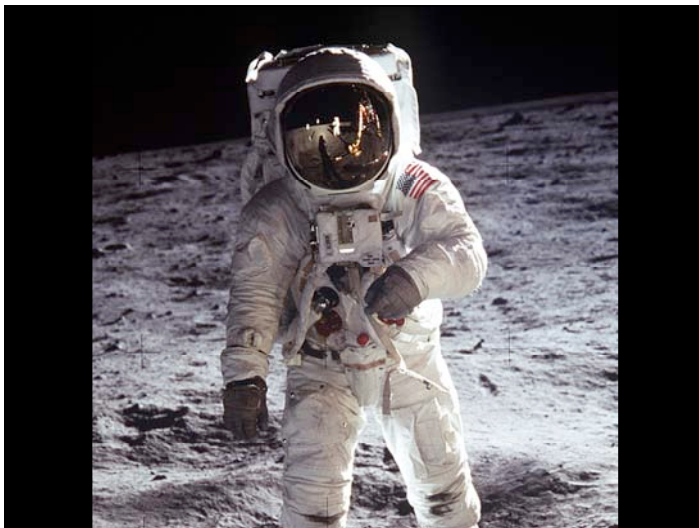
Be Sure of Your Facts

Professor Goddard does not know the relation between action and reaction and the need to have something better than a vacuum against which to react. He seems to lack the basic knowledge ladled out daily in high schools.

New York Times editorial 1921

Correction: It is now definitely established that a rocket can function in a vacuum. The Times regrets the error.

New York Times July 1969



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