

UC Santa Cruz Tesla @ Independence H.S.

Introduction:

Your Guests are the following Researchers
and Students from the
University of California Santa Cruz (UCSC)



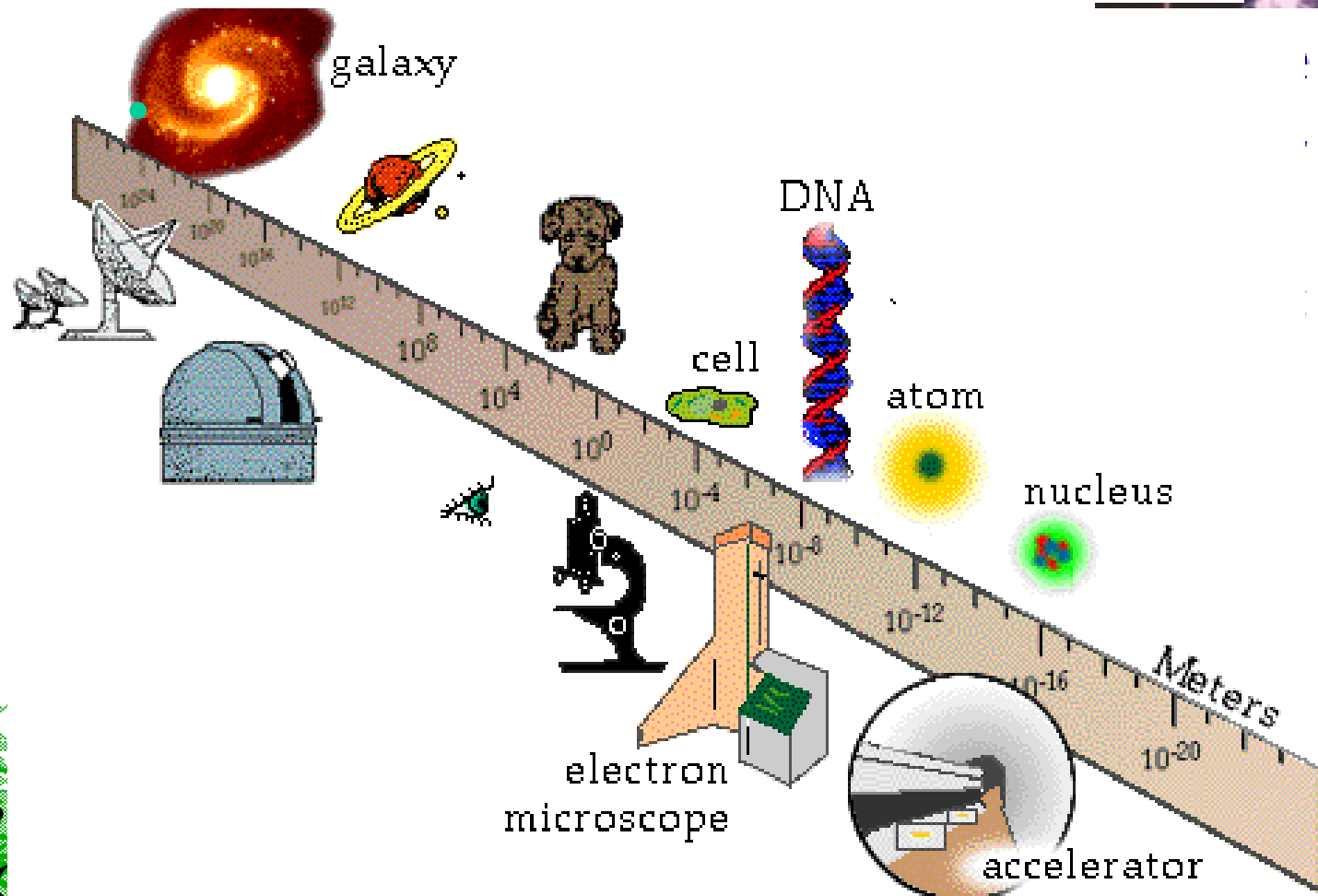
Professor Hartmut Sadrozinski
Professor Terry Schalk
Dr. Charlie Crummer
Daniel Greenhouse, Inventor
Colleen Milbury, student
Kamal Prasad, student

Also in
attendance is a
team from the
German TV
Station SAT-1
with
Roger Bartley



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The World is full of Mysteries, from the tiny to the gigantic



There is plenty to learn and discover!

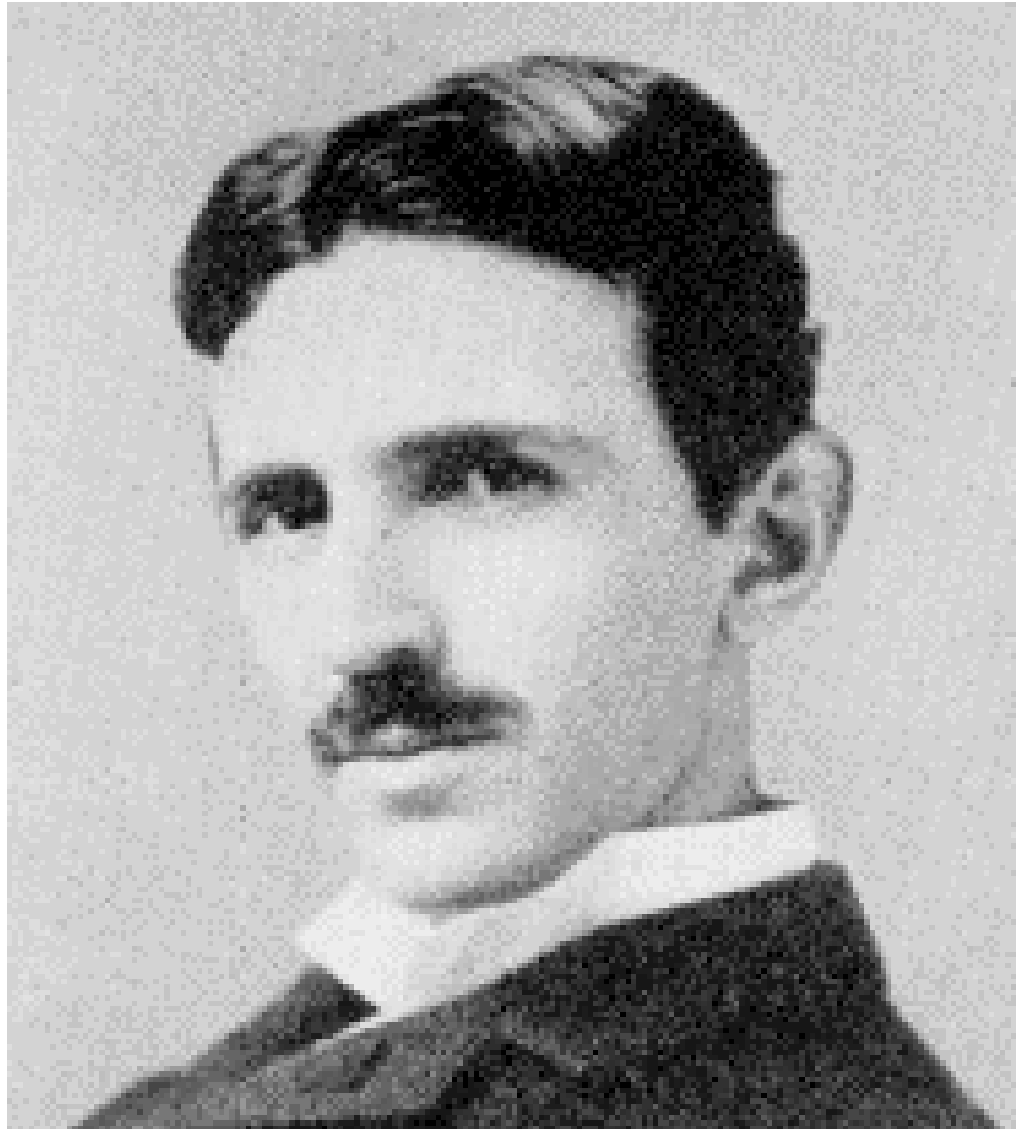
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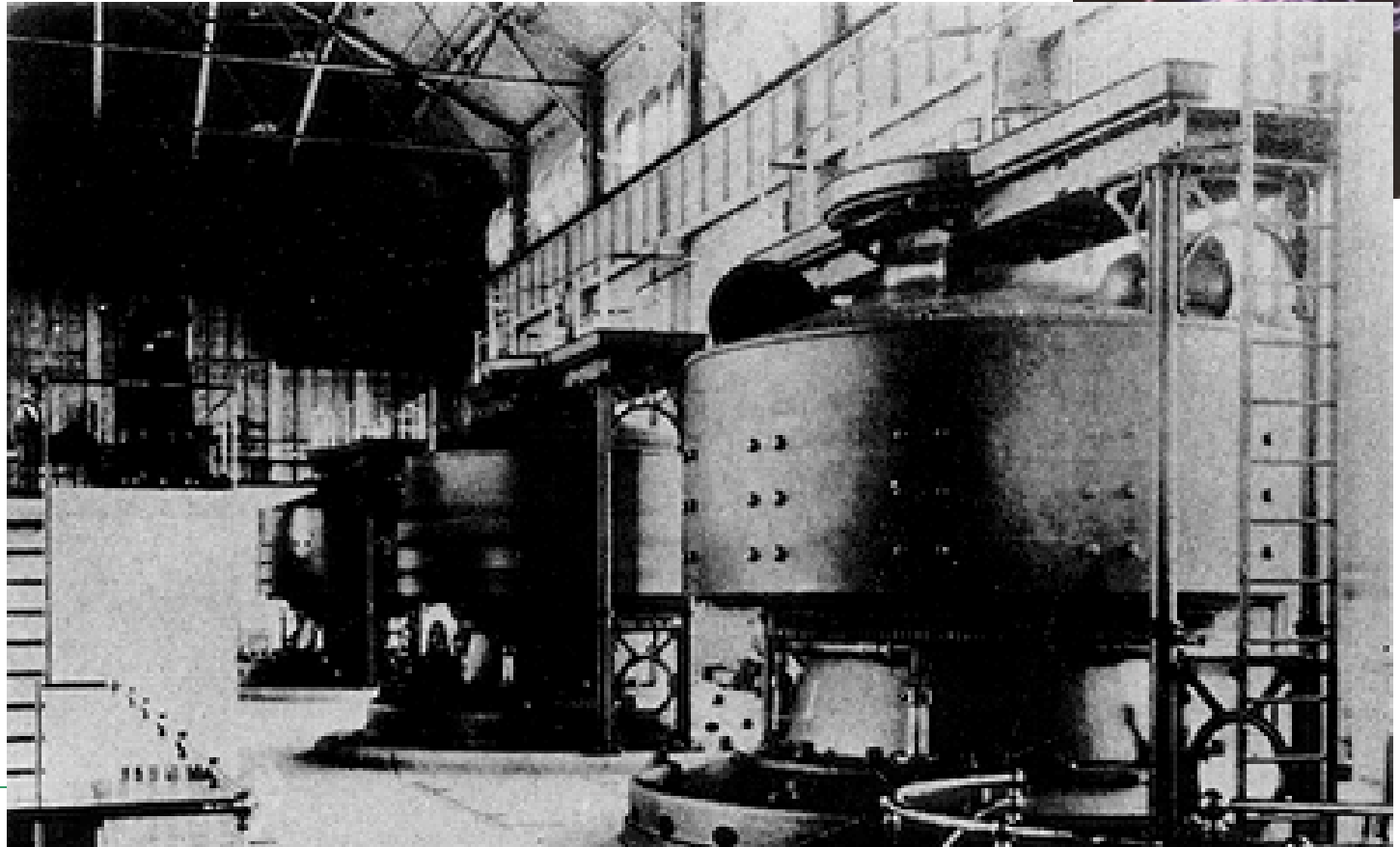
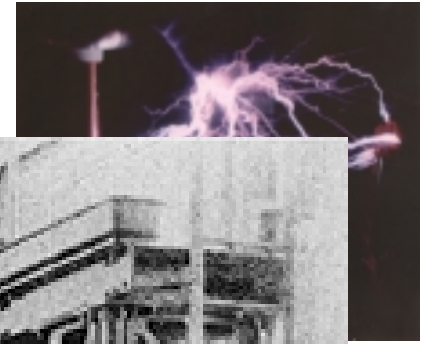
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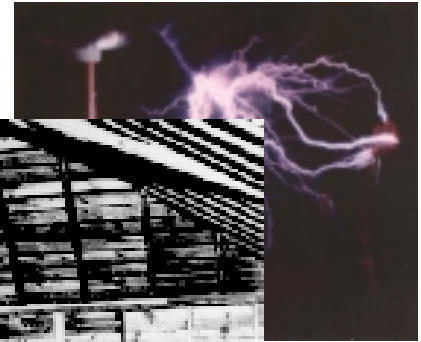
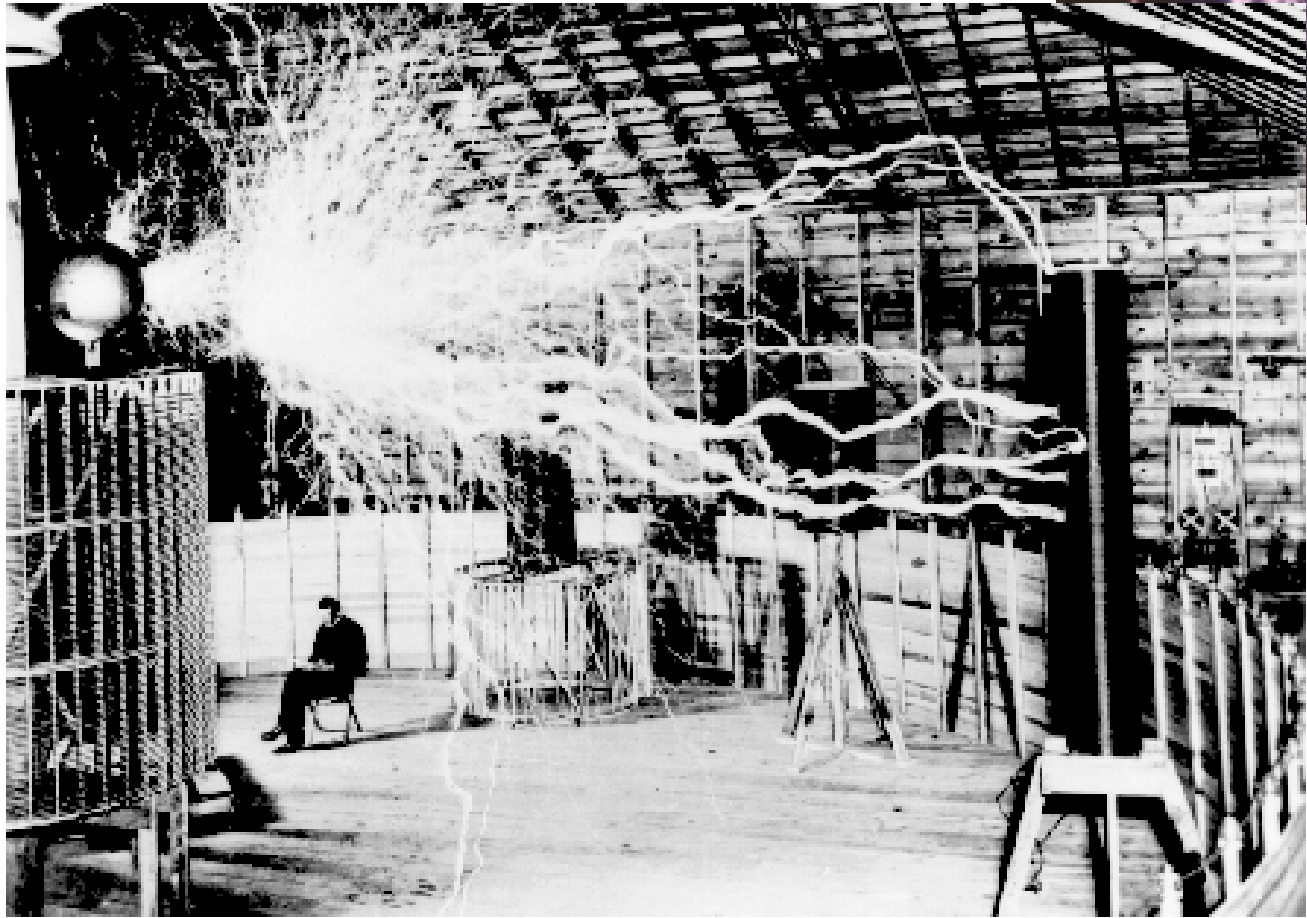
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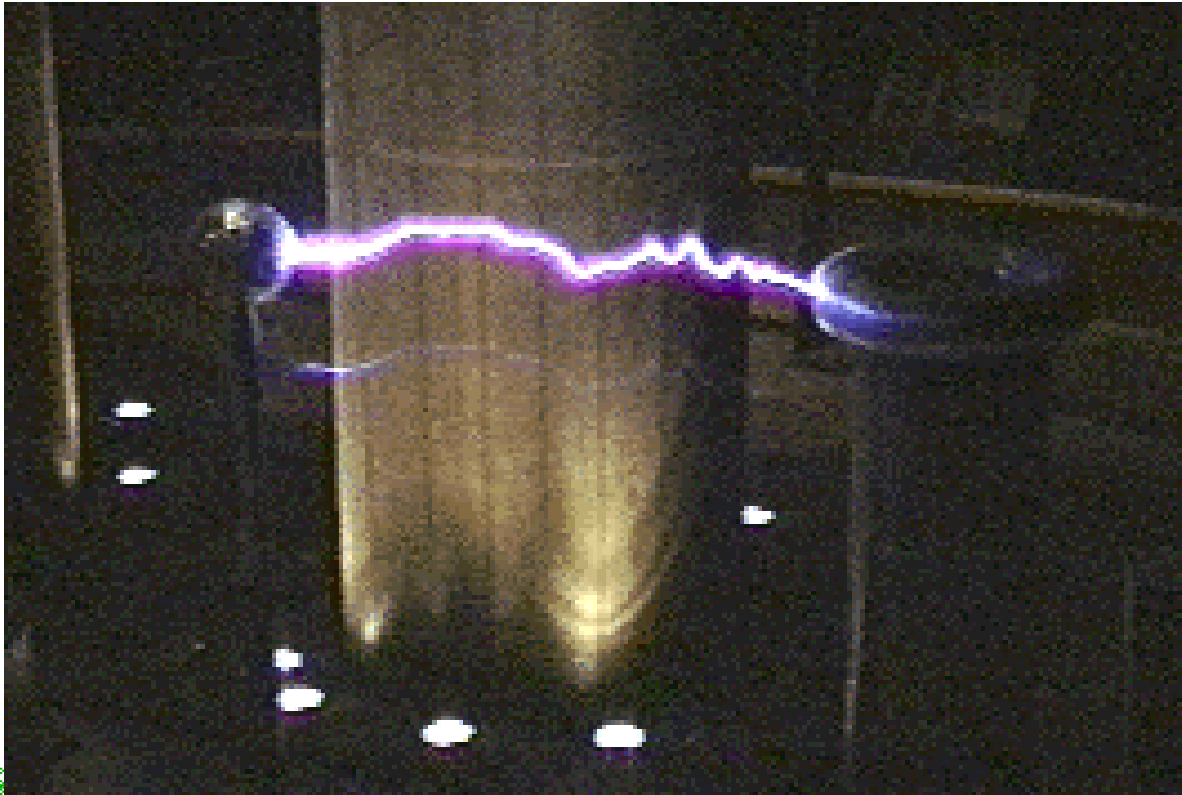
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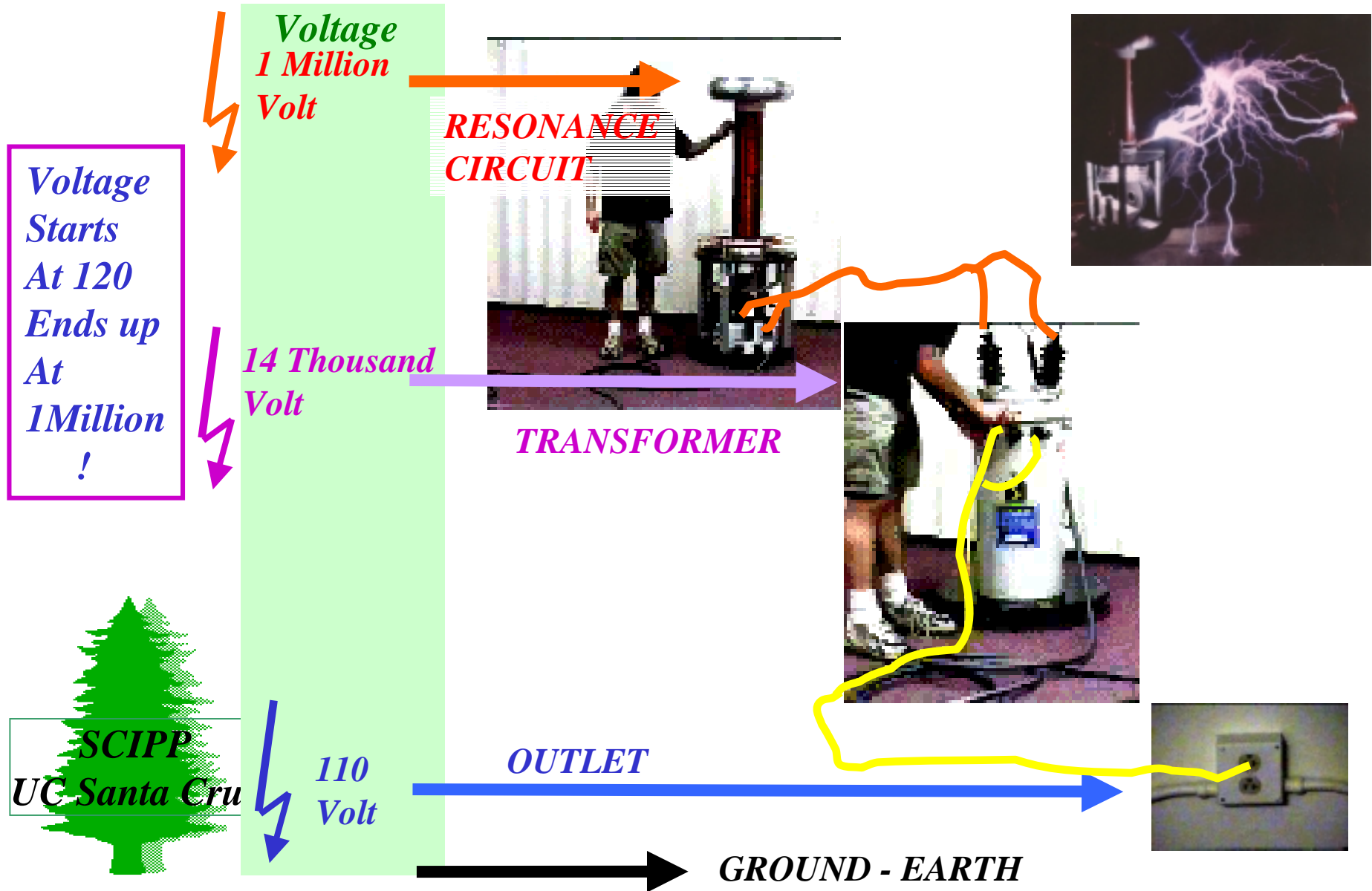
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TRANSFORMER:

POWER OUT = POWER IN

*POWER = VOLT * CURRENT*



POWER OUT



Where have you seen this before?

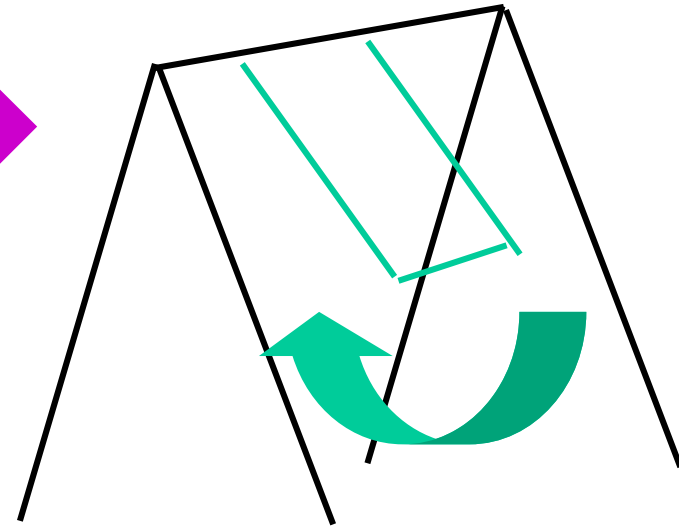
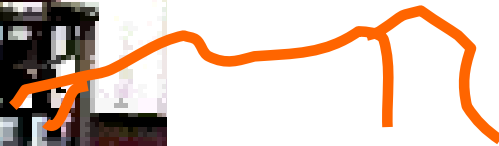
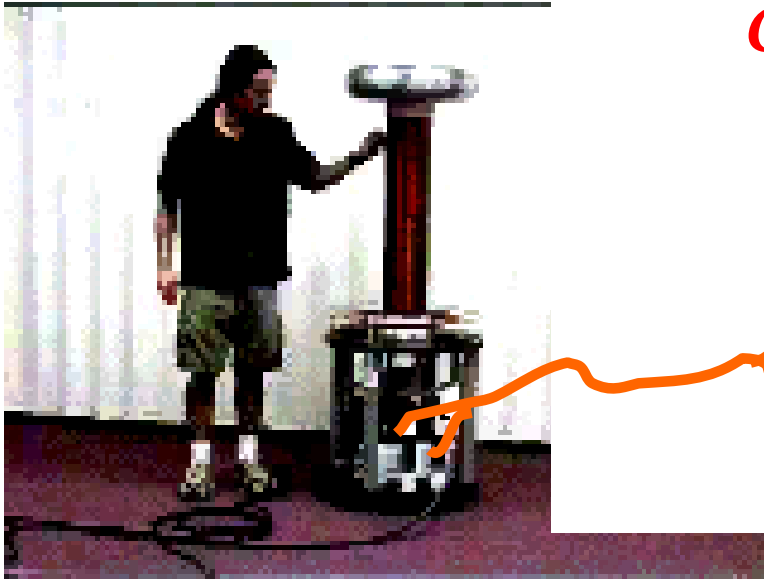
*You will see later
a TRANSFORMER
Demonstration*

POWER IN



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*RESONANCE
CIRCUIT*



*A Kick in the right Moment builds up
and gets you sky-high !*

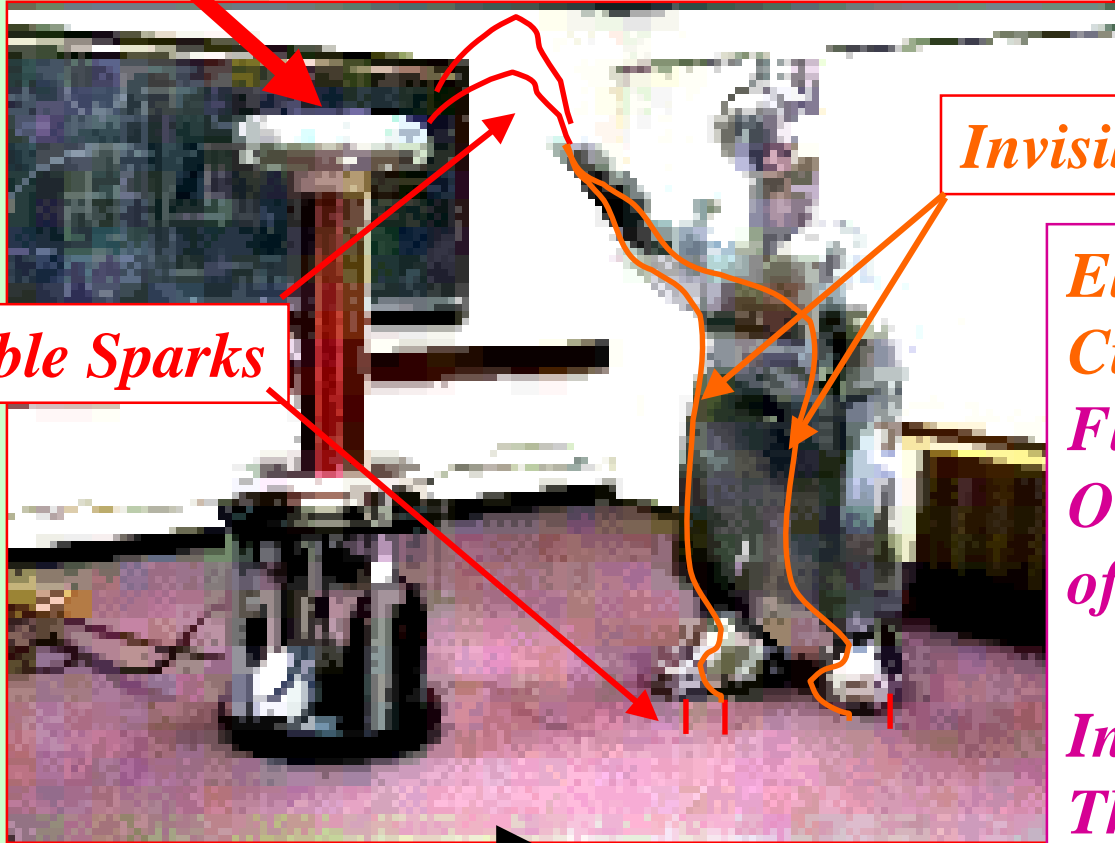


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*Voltage
1 Million
Volt*

The Armored Suit is Safe!



Visible Sparks

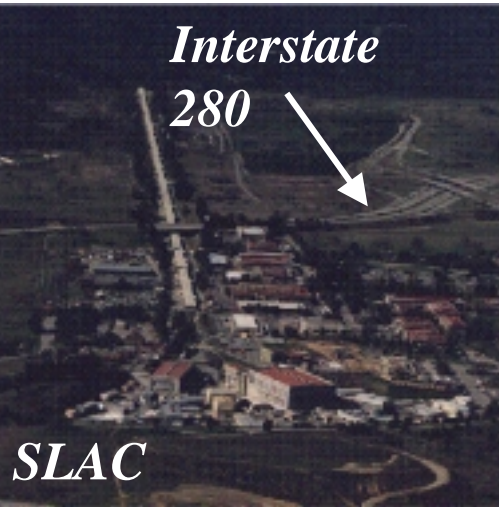
Invisible Current

*Electrical
Current
Flows on the
OUTSIDE
of a Metal!*

*In a
Thunderstorm
stay in the car!*



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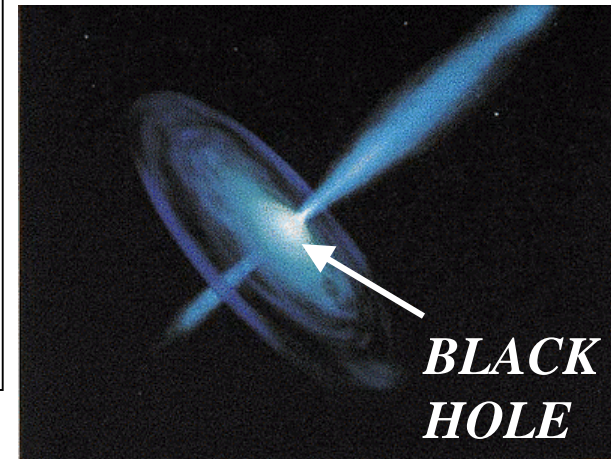


Transformation of Energy:

Similar to the Tesla Coil,
Accelerators convert Energy
into new forms.

Visit the Stanford Linear
Accelerator Center (SLAC):
Electricity → New Particles

In Space in Black Holes:
Matter → Light, X-Rays
UCSC works
on GLAST Mission



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SAFETY FIRST!

***1 Million
Volt!
DANGER***



Distance at least 20ft

*Computers, game boys, CD players, telephones to the back of room
- unplugged, switched off!-*

Hearing aids off, pacemakers out of room

*Normally you can't see, hear, smell electricity
but Tesla Coil makes
bright sparks
loud crackling noise
the air smell bad (Ozone)*

BRACE YOURSELF!



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Program:

Jacob's ladder

Corona

Zorro's Revenge

Bulbs without wires?

Transformer

Knight in Armor

Jumping Jacks

Thanks to our Hosts:

Stuart Briber (Physics Teacher),

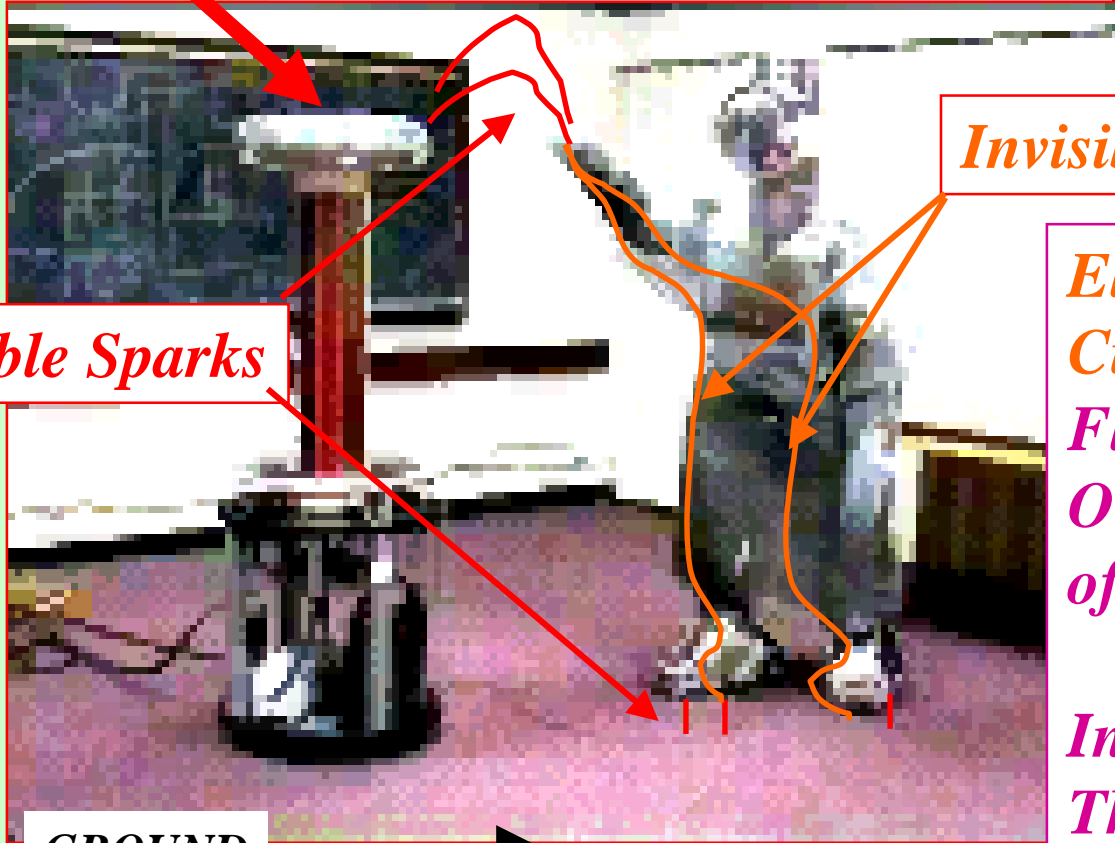
Cari Vaeth (Principal).



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Voltage
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Visible Sparks

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GROUND

