Title: **Emmy Noether: Mistress of Nature's Laws**
Speaker: **Ransom Stephens, Ph.D.**

A speech for nonscientists who are interested in science, its history and the role of women in science and mathematics.

Each speech is customized to address the specific needs of the audience. Past audiences include high school students and teachers, college students, adults at popular science events in cafes, museums, community centers, bars, and even atop a mountain!

"Entertaining and inspiring. Ransom's knowledge is astounding and clearly stated." -Julaina Kleist

Description: A female Jewish intellectual in Nazi Germany, Emmy Noether made perhaps the most significant discovery of the 20th century. Noether's Theorem ties the laws of nature directly to the geometry of space and time, the very fabric of reality. It is the basis for all modern physics theories, from the "Standard Model" to Superstrings, and is the keystone of the origin of mass problem and the search for the Higgs Boson.

Two things should bother you about Noether's Theorem: (1) how come so few people have heard of Emmy Noether? and (2) why isn't her theorem well known to lovers of science? With the help of < The Sponsoring organization> Ransom Stephens solves these problems on <date of event>.

"Great for a person with interest but little background knowledge." -Linda Darly-Reid

This speech helps participants understand:

- Who Emmy Noether was, her personal trials and the impact of her work
- The nature of physical law and the relationship between space and time and the laws of nature
- The origin of mass problem and the search for the Higgs boson at Fermilab and CERN

"I think Ransom might be Hermann Weyl or another of Emmy's friends and mentees reincarnated, come back to share her story so she finally takes her rightful place in history."-Thoi Pham

Speaker Bio:

Ransom Stephens, Ph.D., is a professor of particle physics turned writer and speaker. He has worked on experiments at SLAC, Fermilab and CERN; discovered a new type of matter formed by the fusion of two photons, made the most precise measurements of rare bottom quark decays in the world, and was on the team that discovered the top quark. His novel, *The God Patent* (www.TheGodPatent.com), is set in the battle between science and religion over the nature of the soul and the origin of the universe. It features a character based on the turn of the century mathematician, Emmy Noether.

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"I'm going home to write about the relationship between time and consciousness!" -Maya Hack

Details:
This 50 or 75 minute presentation requires a PC-compatible projector.

More comments from the audience:

"Light, well illustrated!" - Ronnie Ladlow

"Deeply thought provoking in a satisfying way." -Paul Nicholson

"… made the theory understandable…" –Suni Petersen

"Wonderful new information, I couldn't wait to see how you were going to sidestep the Lagrangian – your crank did it." -Paul Palmer

"I thought it was terrific! Informative and hip." -Robert Porter

"Excellent, informative, challenging." -Earl Herr

"Excellent! Just enough math and science to be interesting without being overwhelming for those who lack a physics background." -Andrew Lawrence, MENSA.

"Great! Helped me understand some physics that was still mysterious to me since my BS in Engineering Physics." -Allan Bonadio

"Fun! I learned quite a bit." -Mary Lou Breiman

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