## JOANNE GROWNEY

## My Dance Is Mathematics

Down, down into the darkness of the grave Gently they go, the beautiful, the tender, the kind; Quietly they go, the intelligent, the witty, the brave. I know. But I do not approve. And I am not resigned.

From "Dirge without Music" by Edna St Vincent Millay; offered by Hermann Weyl in a Memorial Address for Amalie "Emmy" Noether on April 26, 1935 at Bryn Mawr College.

They called you *der* Noether, as if mathematics was only for men. In 1964, nearly thirty years past your death, I saw you in a spotlight in a World's Fair mural, "Men of Modern Mathematics."

Colleagues praised your brilliance--but after they had called you fat and plain, rough and loud. Some mentioned kindness and good humor though none, in your lifetime, admitted it was you who led the way in axiomatic algebra. Direct and courageous, lacking self-concern, elegant of mind, a poet of logical ideas.

At a party when you were eight years old, you spoke up to solve a hard math puzzle. Fearless, you set yourself apart.

I followed you and saw you choose between mathematics and other romance. For women only, this exclusive standard.

I heard fathers say, "Dance with Emmy-just once, early in the evening. Old Max is my friend; his daughter likes to dance."

If a woman's dance is mathematics, she dances alone.

Mothers said, "Don't tease. That strange one's heart is kind. She helps her mother with the house and cannot help her curious mind."

Teachers said, "She's smart but stubborn, contentious and loud, a theory builder not persuaded by our ideas."

Students said, "She's hard to follow, bores me." A few stood firm and built new algebras on her exacting formulations.

In spite of Emmy's talents, always there were reasons not to give her rank or permanent employment. She's a pacifist, a woman. She's a woman and a Jew. Her abstract thinking is female and abstruse.

Today, history books proclaim that Noether is the greatest mathematician her sex has produced. They say she was good . . . for a woman.

First published in Mathematics Magazine in December, 1995. https://www.jstor.org/stable/2690927

Note: Amalie "Emmy" Noether was born in Germany (1882) and educated there; she fled the Nazis to the US in 1933 and died on April 14, 1935 in Bryn Mawr, Pennsylvania. When the NY Times failed to publish an obituary following the death of noted algebraist Amalie "Emmy" Noether, Albert Einstein corrected the omission with a letter to the editor (noting Noether's accomplishments) that was published on May 5, 1935. In addition to his praise for one of the most accomplished mathematicians of all time, Einstein said this of mathematics: "Pure mathematics is, in its way, the poetry of logical ideas." In the 1960s, as I climbed into the male-dominated world of mathematics, Emmy Noether was one of my heroes. Many years later I wrote this poem.