

EMMY NOETHER (1882-1935): MATHEMATICIAN EXTRAORDINAIRE

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This talk will describe how the play “Diving into Math with Emmy Noether” came to be written and then first performed in Berlin in 2019. In the first part, I’ll describe some themes from the play, which emphasizes Noether’s interactions with other notable figures from the world of mathematics. After that, we take a brief glance backward to her days in Erlangen and Göttingen, where she and several other mathematicians of Jewish descent lost their positions in 1933. The focus then falls on the last 18 months of her life here at Bryn Mawr, followed by a brief epilogue devoted to the fate of her brother, Fritz Noether, and his family.



$$j = \sum_{i=1}^3 \frac{\partial L}{\partial \dot{x}_i} Q[x_i] - f$$

$$= m \sum_i \dot{x}_i^2 - \left[\frac{m}{2} \sum_i \dot{x}_i^2 - V(x) \right]$$

$$= \frac{m}{2} \sum_i \dot{x}_i^2 + V(x).$$

$$= \sum_i \left(\frac{d}{dt} \left(\frac{\partial \mathcal{L}_\alpha}{\partial \dot{q}_i} \frac{\partial q_i}{\partial \alpha} \right) \right)$$

$$= \sum_i \left(\frac{\partial \mathcal{L}_\alpha}{\partial q_i} \frac{\partial q_i}{\partial \alpha} + \frac{\partial \mathcal{L}_\alpha}{\partial \dot{q}_i} \frac{\partial \dot{q}_i}{\partial \alpha} \right)$$

$$\frac{d}{dt} \sum_i \frac{\partial \mathcal{L}_\alpha}{\partial \dot{q}_i} \frac{\partial q_i}{\partial \alpha}$$

$$0 = \sum_i \left(\frac{d}{dt} \left(\frac{\partial \mathcal{L}_\alpha}{\partial \dot{q}_i} \right) \frac{\partial q_i}{\partial \alpha} + \frac{\partial \mathcal{L}_\alpha}{\partial q_i} \frac{\partial \dot{q}_i}{\partial \alpha} \right)$$

$$j = \sum_{i=1}^3 \frac{\partial L}{\partial \dot{x}_i} Q[x_i] - f$$

Wednesday, September 21st at 8 PM

Join at Park 245 or via Zoom

Zoom Link: [https://brynmawr-edu.zoom.us/j/95807982212?](https://brynmawr-edu.zoom.us/j/95807982212?pwd=aXBBMnFZMUUyWDQ1S1d3TGozc0t5Zz09)
[pwd=aXBBMnFZMUUyWDQ1S1d3TGozc0t5Zz09](https://brynmawr-edu.zoom.us/j/95807982212?pwd=aXBBMnFZMUUyWDQ1S1d3TGozc0t5Zz09)