Name: Michael Dugger

Project Role: Principal Investigator

Nearest person month worked: 5

Contribution to Project: Performed studies of systematics of the polarization measurement from the ASU triplet polarimeter associated with the converter thickness. Performed final-stage analysis of polarimeter data for the 2020 data set (ongoing). Assisted students in analysis projects related to GlueX and CLAS12 data.

Funding Support: Arizona State University and this grant

Collaborated with individual in foreign country: No

Countries of foreign collaborator: NA

Travelled to foreign country: No

Name: Sebastian Cole

Project Role: Graduate student

Nearest person month worked: 5

Contribution to Project: Performed studies regarding potential improvements of particle identification within GlueX data. Utilized AmpTools (partial wave analysis software) to find the J=0 and J=1 contributions to the mass spectrum of $K^* K$ states in the mass region below 1.6 GeV.

Funding Support: This grant

Collaborated with individual in foreign country: No

Countries of foreign collaborator: NA

Travelled to foreign country: No

Name: Brandon Sumner

Project Role: Graduate student

Nearest person month worked: 5

Contribution to Project: Has refined his preliminary cross sections for $\gamma p \rightarrow K^+ K^+ \Xi^-(1530)$, where $\Xi^-(1530) \rightarrow \pi^0 \Xi^-$. Brandon has also begun analyzing data for excited cascades to decay $\pi^- \Xi^0$ as well as to $K^- \Lambda$.

Funding Support: This grant

Collaborated with individual in foreign country: No

Countries of foreign collaborator: NA

Travelled to foreign country: No

Name: Alan Gardner

Project Role: Graduate

Nearest person month worked: 3

Contribution to Project: Assisted Sebastian Cole in building code used in the partial wave analysis of the $K^* K$.

Funding Support: Arizona State University and this grant

Collaborated with individual in foreign country: No

Countries of foreign collaborator: NA

Travelled to foreign country: No

Name: Patrick Walker

Project Role: Undergraduate

Nearest person month worked: 2

Contribution to Project: Analyzed $K^+ K^- \pi^0$ final states using data from the CLAS12 detector.

Funding Support: Self

Collaborated with individual in foreign country: No

Countries of foreign collaborator: NA

Travelled to foreign country: No

Name: Rebecca Osar

Project Role: Undergraduate

Nearest person month worked: 2

Contribution to Project: Built (ongoing) an event generator for $e\ p \rightarrow e\ p\ K\ \Lambda(1520)$. Analyzed data to obtain yields for the $e\ p \rightarrow e\ p\ K\ \Lambda(1520)$ reaction binned in W.

Funding Support: Self

Collaborated with individual in foreign country: No

Countries of foreign collaborator: NA

Travelled to foreign country: No

Name: Emily Lamagna

Project Role: Undergraduate

Nearest person month worked: 1

Contribution to Project: Analyzed CLAS12 data to reconstruct the φ and π^0 mesons.

Funding Support: Self

Collaborated with individual in foreign country: No

Countries of foreign collaborator: NA

Travelled to foreign country: No

Name: Anna Costelle

Project Role: Undergraduate

Nearest person month worked: 1

Contribution to Project: Created an event generator for the reaction $\gamma\, p \rightarrow p\, \varphi$ as a first step towards the construction of generators for more complicated final states.

Funding Support: Self

Collaborated with individual in foreign country: No

Countries of foreign collaborator: NA

Travelled to foreign country: No

Organization Name: Arizona State University

Location of Organization: Tempe and Mesa Arizona

Partner's contribution to the project: Supplies local lab space, utilities and internet access

Organization Name: Jefferson Lab

Location of Organization: Newport News Virginia

Partner's contribution to the project: Supplies laboratory where the experiments take place