

## WINNING PROPOSAL

### Discovery of Topological States in InN Quantum Dots

DARPA Grant Awarded  
in Summer 2018

## GRANT WINNER

**Morgan Ware, Ph.D.**

Semiconductor Nanomaterials

University of Arkansas

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"Seeing connections and overlap between sub-fields within my own field is potentially useful, but what makes an idea like Polyplexus truly revolutionary is getting a controlled environment in which to find useful connections with disparate fields within which I would generally never associate."

## HOW

### Collaborating Across Areas of Expertise and Institutions

Posted 11 Evidence and 6 Conjecture  $\mu$ Pubs, supplemented by 22 quantum computing Evidence and Conjecture  $\mu$ Pubs from Plexors at 3 universities



## WHAT

### Disrupting the Status Quo

- Implementation of quantum computing to remain coherent at room temperature
- Use quantum dots (QD) to promote scalability
- Leverage long spin lifetimes of QDs for quantum computing purposes

## WHY

### Powering Research Sponsors

Benefits DARPA research in:

- Quantum-assisted sensing and readout
- Driven and non-equilibrium quantum systems
- Accelerated computation for scientific simulations