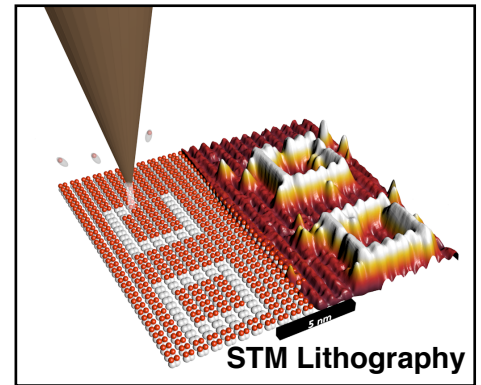
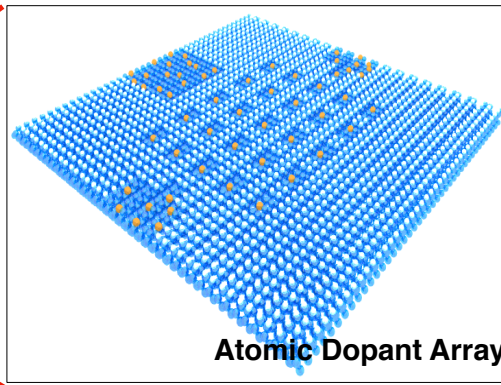
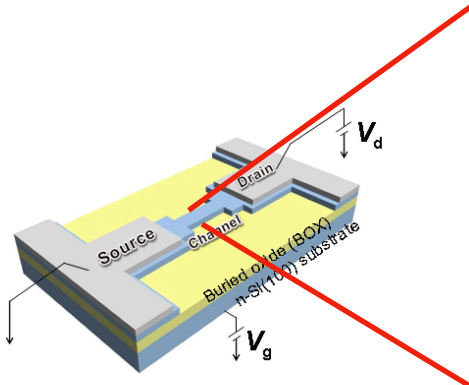


# 2D Quantum MetaMaterials



From Prati et al.  
**Nature Nanotech. (2012)**  
 doi:10.1038/nnano.2012.94

Dopant atoms placed with atomic precision into tunable arrays using STM can be made to display electronic and photonic properties across a wide range of structures for 2D quantum metamaterials.

The workshop will explore useful commonalities between fabrication, theoretical prediction, and alternative approaches to **tunable** quantum materials, including cold-atom realizations.

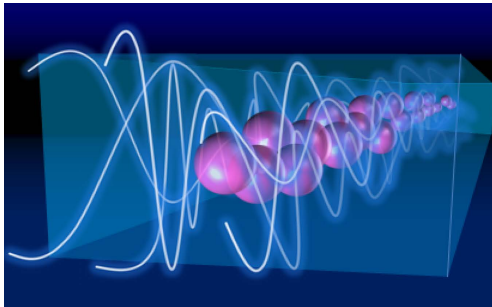
Theoretical efforts served by this new simulation platform include Hubbard model systems, design of 2D materials, and other exotic materials.

The workshop will be a combination of:

- i) all-invited talks by leading researchers,
- ii) breakout sessions for discussions and future plans,
- iii) a published Workshop Summary Report.

**Goal:** to develop a roadmap for practitioners and funders in this burgeoning field.

We invite interested parties and program managers from federal agencies to lend their expertise and insights.



For more information:  
[www.zyvexlabs.com/2d-workshop/](http://www.zyvexlabs.com/2d-workshop/)

Contact: [info@zyvexlabs.com](mailto:info@zyvexlabs.com)

## Organizing Committee

Co-Chairs: Richard M. Silver, NIST,  
 Shashank Misra, Sandia National Labs,  
 John N. Randall, Zyvex Labs.

Neil Zimmerman, NIST,  
 Joshua Ballard, Zyvex Labs,  
 James Owen, Zyvex Labs,  
 Wiley P. Kirk, UT Arlington, 3DET  
 Ezra Bussmann, Sandia National Labs  
 Clark Highstrete, Sandia National Labs

## Accepted Speakers

Gabriel Aeppli	PSI	Cheng Chin	Univ. Chicago
Kaden Hazzard	Rice University	Subir Sachdev	Harvard
Philip Phillips	Univ. Illinois	Alicia Kollar	Princeton
Jonathan Wyrick	NIST	Norbert Linke	Univ. Maryland
Shashank Misra	Sandia Nat. Lab	Ingmar Swart	Univ. Utrecht
Enrico Prati	IFN CRN, Milan	Sjaak van Diepen	TU Delft

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