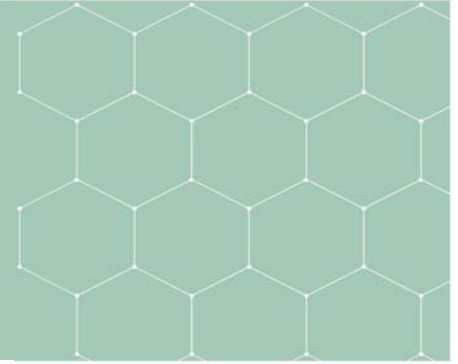




# PHYSICS

## COLORADO STATE UNIVERSITY



### **CSU PHYSICS COLLOQUIUM**

#### **Technological and Human Challenges of Finding Natural Gas Leaks in Cities**

**Joseph von Fischer**

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October 1, 2018 at 4 p.m.  
120 Engineering (Hammond Auditorium)

#### **Abstract**

Information about the location and magnitudes of natural gas leaks from urban distribution pipelines is important for minimizing greenhouse gas emissions and optimizing investment in pipeline management. To enable rapid collection of such data, we developed a relatively simple method using high-precision methane analyzers in Google Street View cars. Our data indicate that this automated leak survey system can document patterns in leak location and magnitude within and among cities, even without wind data. We found that urban areas with prevalent corrosion-prone distribution lines (Boston, MA, Staten Island, NY, and Syracuse, NY), leaked approximately 25-fold more methane than cities with more modern pipeline materials (Burlington, VT, and Indianapolis, IN). Yet despite the potential of this technology, there has been very slow adoption of it by the natural gas utilities for reasons that you'll have to show up at the seminar to hear about.

