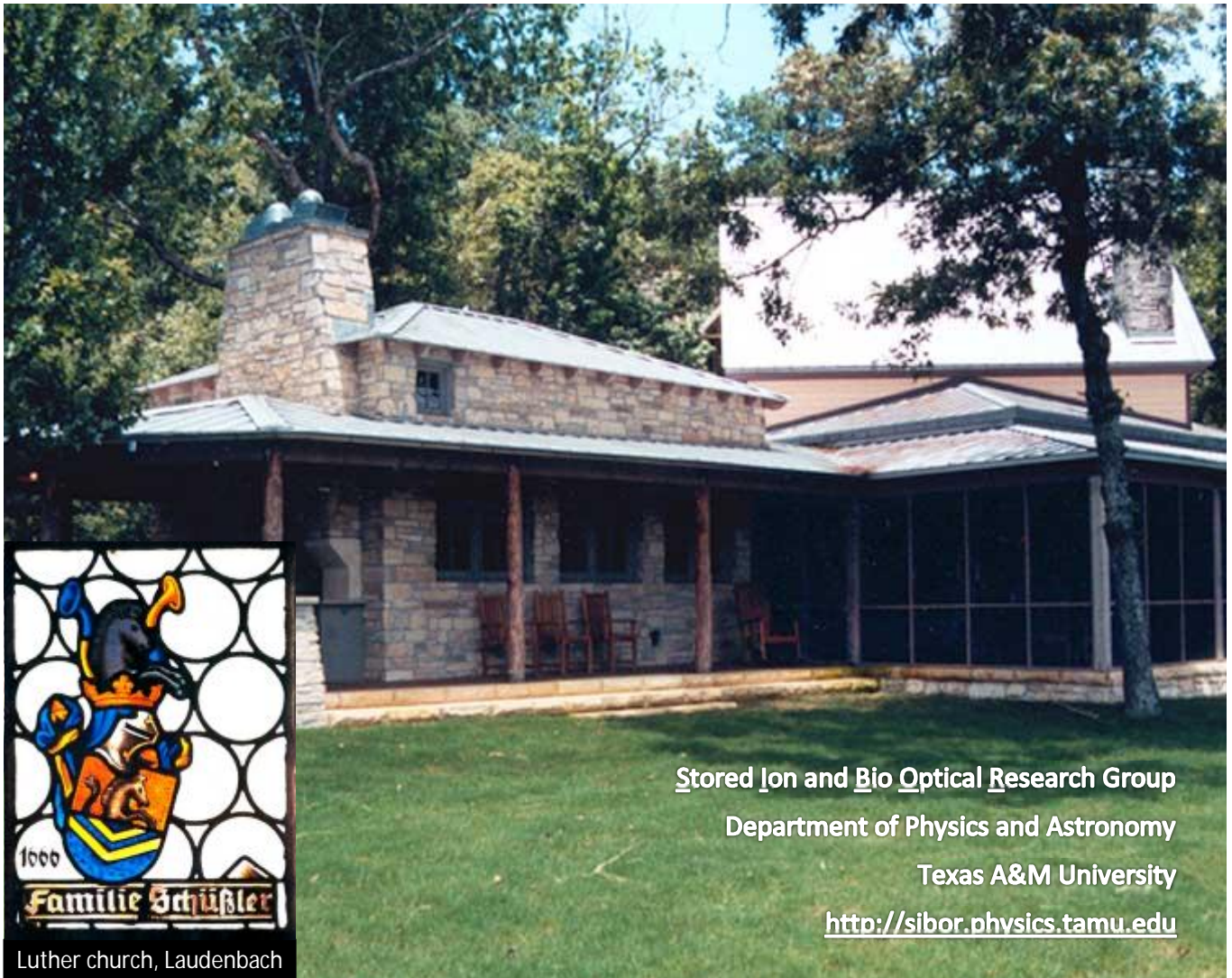


Cook's Branch Conservancy

SIBOR – Workshop

Friday, November 6, 2015


Program



Stored Ion and Bio Optical Research Group
Department of Physics and Astronomy
Texas A&M University
<http://sibor.physics.tamu.edu>

Luther church, Laudenbach

schuessler@physics.tamu.edu
November 6, 2015



The SIBOR and Attosecond group of
the Department of Physics and Astronomy
of Texas A&M University

requests the pleasure of your company at
a workshop at Cook's Branch Conservancy*
(Cynthia & George Mitchell Foundation)
on Friday, November 6, 2015

Please respond by October 31, 2015

* 7720 149N Montgomery, TX 77316 ([map](#))
<http://youtu.be/LJX5gFdNGjc>

9:30 – 10:00	Arrival
10:00 – 10:25	Winfried Teizer, Associate Professor Department of Physics & Astronomy, Texas A&M University <i>Molecular Motors – Can nanotechnology cure Alzheimer's disease?</i>
10:25 – 10:35	Workshop photograph
10:40 – 11:05	Donald Umstadter Leland J. and Dorothy H. Olson Chair of Atomic, Molecular and Optical Physics, Dept. of Physics and Astronomy, University of Nebraska, Lincoln <i>Biomedical applications of laser-driven electrons and x-rays</i>
11:10 – 11:35	Feng Zhu Department of Physics & Astronomy, Texas A&M University <i>Broadband dual comb spectroscopy for breath analysis</i>
11:40 – 12:05	Jens Lassen, Adjunct Professor Simon Fraser University and University of Manitoba TRIUMF - Canada's national laboratory for particle and nuclear physics <i>On-line radioactive isotope production techniques</i>
12:15	Lunch
13:30 – 13:55	Zohreh Schuessler, Clinical Assistant Professor Sam Houston State University <i>Diabetes mellitus, a challenge for Nursing Education</i>
14:00 – 14:25	Marcia Ory, Ph.D., M.P.H., Associate Dean of Research, Distinguished Professor Health Promotion & Community Health Sciences, Texas A&M Health Science Center <i>The promotion of evidence-based programming for older adults by engaging communities and linking to health care</i>
14:30 – 14:55	Annette Sobel, M.D., M.S., FAAFP, FAsMA, P.E., Major General (Ret., AZANG) Associate Professor, Department of Medical Education, TTUHSC and TTU <i>Priorities for critical infrastructure protection and health security in smart cities</i>
15:00 – 15:25	James Strohaber, Assistant Professor Department of Physics, Florida A&M University <i>Laser vortex beams in medicine</i>
15:30 – 15:55	Anthony Guiseppi-Elie, TEES Professor and Head Department of Biomedical Engineering, Texas A&M University <i>Engineering the ABIO-BIO Interface: The Challenge of Indwelling Biocompatibility</i>
16:00 – 16:10	Coffee break
16:10 – 16:35	Andreas Mershin, Research Scientist Center for Bits and Atoms, Massachusetts Institute of Technology Video presentation: <i>Learning Biophysics Through The Nose</i>
16:40 – 17:05	Dmitri Lapotko, Faculty Fellow in Biochemistry and Cell Biology Department of BioSciences, Rice University <i>Can physics help in detecting and treating the deadliest diseases?</i>
17:10 – 18:00	Poster Session
18:00 – 18:30	Explore <i>Cook's Branch Conservancy</i> and find the red woodpecker
18:30	Dinner
20:00	Departure

We thank Sheridan Lorenz and the Cynthia & George Mitchell Foundation for hosting this workshop.

Posters

New possibilities for the efficiency enhancement of the high harmonic generation process in gas mixtures of Ne and H₂

M. Sayraç, A.A. Kolomenskii, S. Anumula, G. Kaya, N. Kaya and H.A. Schuessler

Sensitive Molecular Spectroscopy of crude oil and well gas in sea water

Y. Boran, A.H.M. J. Rahman, N. Kaya, J. Strohaber, A.A. Kolomenskii, M. Amani, V. Kelessidis, H.A. Schuessler

Intensity-resolved above-threshold ionization of xenon with short laser pulses

N.A. Hart, J. Strohaber, G. Kaya, N. Kaya, A.A. Kolomenskii, H.A. Schuessler

Time-sliced 3D momentum imaging of H₂⁺ photofragmentation

N. Kaya, G. Kaya, J. Strohaber, A.A. Kolomenskii, H.A. Schuessler

Filament propagation length of femtosecond pulses with Gaussian and Bessel-Gaussian modes

N. Kaya, M. Sayraç, G. Kaya, Y. Boran, J. Strohaber, A.A. Kolomenskii, H.A. Schuessler

Coupling of light to surface plasmons for sensing applications

J. Anderson, H. Chen, A.A. Kolomenskii, H.A. Schuessler

Sympathetic cooling and shuttling of He⁺ ions with Be⁺ ions in a segmented linear Paul trap

C. Perkins, A. Ozawa, F. Schmid, H.A. Schuessler

Cavity ring-down spectroscopy of CH₄ and CO₂ using DFB diode laser near 1.65 μm

A. Bicer, J. Bounds, F. Zhu, A.A. Kolomenskii, H.A. Schuessler

Mid-infrared dual frequency comb spectroscopy based on fiber lasers for the detection of methane in ambient air

F. Zhu, A. Bicer, R. Askar, J. Bounds, A.A. Kolomenskii, V. Kelessides, M. Amani, H.A. Schuessler

Research supported by:

Directions to Cook's Branch Conservancy:

7720 149N Montgomery, TX 77316

From College Station ([Google map](#)):

Hwy 6 South to Hwy 105 East (at Navasota)

105 East to Montgomery

Turn right (south) on 149 (S Liberty St. in Montgomery)

Go 6.7 Miles to Cook's Branch Conservancy entrance

Turn Left into Cook's Branch Conservancy

There is a sign at Cook's Branch Conservancy, but it is easy to miss.

Follow posted signs.

