Amir H. Souri, Ph.D.

Harvard-Smithsonian Center for Astrophysics, 60 Garden St, Cambridge, Massachusetts, USA

Education

Ph.D. (2018)	Atmospheric Sciences, University of Houston, 2015-2018 ***Thesis**: Constraining NO_x emissions using spaceborne and airborne remotely sensed NO_2 observations*
M.S. (2014)	Remote Sensing, University of Tehran, 2011-2014 ***Thesis**: Water vapor modeling and atmospheric corrections on InSAR technique*
B.S. (2011)	Civil-Surveying and Geomatics Eng., University of Tehran, 2007-2011 ***Thesis**: Hydrological modeling of precipitation and flood using geostatistical tools*

Current Employment

Atmospheric Physicist, Harvard-Smithsonian Center for Astrophysics

Work Experience

Atmospheric Physicist, Harvard-Smithsonian Center for Astrophysics, 2018-present, *Sponsor: Kelly Chance*

Research Assistant, University of Houston, 2015-2018, *Sponsor: Yunsoo Choi*

Teaching Assistant, University of Tehran, 2013-2014

Professional Memberships, Awards, Honors

American Geophysical Union

American Meteorological Society

TEMPO Group Achievement Award, 2020, Awarded by NASA

Pecora Team Award, **2019**, OMI International Team: Awarded to SAO's Atmospheric Measurement Group, NASA Aura Team, and KNMI

Outstanding Academic Achievement in Atmospheric Sciences, 2017, University of Houston: for maintaining high GPA and publishing numerous papers during the academic year.

Outstanding Academic Achievement in Atmospheric Sciences, 2016, University of Houston: for maintaining high GPA and publishing numerous papers during the academic year.

Presidential Fellowship, 2015, University of Houston: for having a strong CV among PhD applicants.

Awarded Grants

As PI

(3) Remote-Sensing of Surface-Level Ozone Sensitivity to Nitrogen Oxides and Volatile Organic Compounds 2021-2023, PI: Matthew Johnson (NASA AMES), Co-Is: Sajeev Philip, Rajesh Kumar, **A. H. Souri**, and Jeff Geddes, NASA Aura Science Team, ***Amount (my share):*** **$168,909**

(2) Algorithm maintenance for SAO standard OMI products (HCHO, BrO, OClO, etc.), 2020-2023, PI: Kelly Chance (SAO), Co-Is: Xiong Liu, Gonzalo González Abad, Caroline Nowlan, Chris Miller, Raid Suleiman, Helen Wang, and **A. H. Souri**, NASA Aura Science Team, ***Amount (total):*** **$1,091,802**

(1) Corn Sweat: Contribution of Plant Transpiration during Heatwaves, 2019-2020, **PI: A. H. Souri**, Co-I: H. Wang (SAO), Scholarly Studies Awards Grant from the Smithsonian Institution, ***Amount (total):*** **$74,425**

Peer-Reviewed Journals

(*n*=28, fraction of leading authorship= 57%, citation: 592, h-index: 15, i10-index: 20)

Leading author or my contribution is equal to the first author's

Featured

Based on the ratio of leading-authored papers to the total; a made-up metric to gauge the capability of being independent.

(28) **Souri, A. H.**, Johnson, M. S., Wolfe, G. M., Crawford, J. H., Fried, A., Wisthaler, A., Brune, W. H., Blake, D. R., Weinheimer, A. J., Verhoelst, T., Compernolle, S., Pinardi, G., Vigouroux, C., Langerock, B., Choi, S., Lamsal, L., Zhu, L., Sun, S., Cohen, R. C., Min, K.-E., Cho, C., Philip, S., Liu, X., and Chance, K., 2020. Characterization of Errors in Satellite-based HCHO/NO_2 Tropospheric Column Ratios with Respect to Chemistry, Column to PBL Translation, Spatial Representation, and Retrieval Uncertainties, Atmospheric Chemistry and Physics Discussions.

(27) Jung, J., Choi, Y., **Souri, A.H.**, Mousavinezhad, S., Sayeed, A., Lee, K., 2022. The Impact of Springtime-Transported Air Pollutants on Local Air Quality With Satellite-Constrained NOx Emission Adjustments Over East Asia. Journal of Geophysical Research: Atmospheres 127, e2021JD035251. https://doi.org/10.1029/2021JD035251

(26) **Souri, A.H.**, Chance, K., Sun, K., Liu, X., Johnson, M.S., 2022. Dealing with spatial heterogeneity in pointwise-to-gridded- data comparisons. Atmospheric Measurement Techniques 15, 41–59. https://doi.org/10.5194/amt-15-41-2022

(25) **Souri, A.H**., Chance, K., Bak, J., Nowlan, C.R., González Abad, G., Jung, Y., Wong, D.C., Mao, J., Liu, X., 2021. Unraveling pathways of elevated ozone induced by the 2020 lockdown in Europe by an observationally constrained regional model using TROPOMI. Atmospheric Chemistry and Physics 21, 18227–18245. https://doi.org/10.5194/acp-21-18227-2021

(24) Pouyaei, A., Sadeghi, B., Choi, Y., Jung, J., **Souri, A.H.**, Zhao, C., Song, C.H., 2021. Development and Implementation of a Physics-Based Convective Mixing Scheme in the Community

Multiscale Air Quality Modeling Framework. Journal of Advances in Modeling Earth Systems 13, e2021MS002475. https://doi.org/10.1029/2021MS002475

(23) **Souri, A.H.**, Nowlan, C.R., González Abad, G., Zhu, L., Blake, D.R., Fried, A., Weinheimer, A.J., Woo, J.-H., Zhang, Q., Chan Miller, C.E., Liu, X., Chance, K., 2020. An Inversion of NO_x and NMVOC Emissions using Satellite Observations during the KORUS-AQ Campaign and Implications for Surface Ozone over East Asia. Atmospheric Chemistry and Physics 20, 9837–9854. https://doi.org/10.5194/acp-2020-220

(22) **Souri, A.H.,** Choi, Y., Kodros, J.K., Jung, J., Shpund, J., Pierce, J.R., Lynn, B.H., Khain, A., Chance, K., 2020. Response of Hurricane Harvey's rainfall to anthropogenic aerosols: A sensitivity study based on spectral bin microphysics with simulated aerosols. Atmospheric Research 242, 104965. https://doi.org/10.1016/j.atmosres.2020.104965

(21) **Souri, A.H.,** Wang, H., Abad, G.G., Liu, X., Chance, K., 2020. Quantifying the Impact of Excess Moisture From Transpiration From Crops on an Extreme Heat Wave Event in the Midwestern U.S.: A Top-Down Constraint From Moderate Resolution Imaging Spectroradiometer Water Vapor Retrieval. Journal of Geophysical Research: Atmospheres 125, e2019JD031941. https://doi.org/10.1029/2019JD031941

(20) **Souri, A.H.,** Nowlan, C.R., Wolfe, G.M., Lamsal, L.N., Chan Miller, C.E., Abad, G.G., Janz, S.J., Fried, A., Blake, D.R., Weinheimer, A.J., Diskin, G.S., Liu, X., Chance, K., 2020. Revisiting the effectiveness of $HCHO/NO_2$ ratios for inferring ozone sensitivity to its precursors using high resolution airborne remote sensing observations in a high ozone episode during the KORUS-AQ campaign. Atmospheric Environment 117341. https://doi.org/10.1016/j.atmosenv.2020.117341

(19) Jung, J., **Souri, A.H.**, Wong, D.C., Lee, S., Jeon, W., Kim, J., Choi, Y., 2019. The Impact of the Direct Effect of Aerosols on Meteorology and Air Quality Using Aerosol Optical Depth Assimilation During the KORUS-AQ Campaign. Journal of Geophysical Research: Atmospheres 124, 8303–8319. https://doi.org/10.1029/2019JD030641

(18) Kochanski, A.K., Mallia, D.V., Fearon, M.G., Mandel, J., **Souri, A.H.**, Brown, T., 2019. Modeling Wildfire Smoke Feedback Mechanisms Using a Coupled Fire-Atmosphere Model With a Radiatively Active Aerosol Scheme. Journal of Geophysical Research: Atmospheres 124, 9099–9116. https://doi.org/10.1029/2019JD030558, *Highlighted in JGR: Atmospheres, Featured in EOS, Science Daily, and Phys.org*

(17) Wang, H., **Souri, A.H.**, González Abad, G., Liu, X., Chance, K., 2019. Ozone Monitoring Instrument (OMI) Total Column Water Vapor version 4 validation and applications. Atmospheric Measurement Techniques 12, 5183–5199. https://doi.org/10.5194/amt-12-5183-2019

(16) Gonzalez Abad, G., **Souri, A.H.**, Bak, J., Chance, K., Flynn, L.E., Krotkov, N.A., Lamsal, L., Li, C., Liu, X., Miller, C.C., Nowlan, C.R., Suleiman, R., Wang, H., 2019. Five decades observing

Earth's atmospheric trace gases using ultraviolet and visible backscatter solar radiation from space. Journal of Quantitative Spectroscopy and Radiative Transfer 238, 106478. https://doi.org/10.1016/j.jqsrt.2019.04.030

(15) Kotsakis, A., Choi, Y., **Souri, A.H.**, Jeon, W., Flynn, J., 2019. Characterization of Regional Wind Patterns Using Self-Organizing Maps: Impact on Dallas–Fort Worth Long-Term Ozone Trends. J. Appl. Meteor. Climatol. 58, 757–772. https://doi.org/10.1175/JAMC-D-18-0045.1

(14) **Souri, A.H.**, Choi, Y., Pan, S., Curci, G., Nowlan, C.R., Janz, S.J., Kowalewski, M.G., Liu, J., Herman, J.R., Weinheimer, A.J., 2018. First Top-Down Estimates of Anthropogenic NOx Emissions Using High-Resolution Airborne Remote Sensing Observations. Journal of Geophysical Research: Atmospheres 123, 3269–3284. https://doi.org/10.1002/2017JD028009

(13) Jeon, W., Choi, Y., **Souri, A.H.**, Roy, A., Diao, L., Pan, S., Lee, H.W., Lee, S.-H., 2018. Identification of chemical fingerprints in long-range transport of burning induced upper tropospheric ozone from Colorado to the North Atlantic Ocean. Science of The Total Environment 613–614, 820–828. https://doi.org/10.1016/j.scitotenv.2017.09.177

(12) **Souri, A. H.**, Choi, Y., Jeon, W., Kochanski, A.K., Diao, L., Mandel, J., Bhave, P.V., Pan, S., 2017. Quantifying the Impact of Biomass Burning Emissions on Major Inorganic Aerosols and Their Precursors in the U.S. Journal of Geophysical Research: Atmospheres 122, 12,020-12,041. https://doi.org/10.1002/2017JD026788

(11) **Souri, A. H.**, Choi, Y., Jeon, W., Woo, J.-H., Zhang, Q., Kurokawa, J., 2017. Remote sensing evidence of decadal changes in major tropospheric ozone precursors over East Asia. Journal of Geophysical Research: Atmospheres 122, 2474–2492. https://doi.org/10.1002/2016JD025663, *Featured in JGR and NSM.*

(10) Diao, L., Choi, Y., Czader, B., Li, X., Pan, S., Roy, A., **Souri, A.H.**, Estes, M., Jeon, W., 2016. Discrepancies between modeled and observed nocturnal isoprene in an urban environment and the possible causes: A case study in Houston. Atmospheric Research 181, 257–264. https://doi.org/10.1016/j.atmosres.2016.07.009

(9) Jeon, W., Choi, Y., Percell, P., **Souri, A.H.**, Song, C.-K., Kim, S.-T., Kim, J., 2016. Computationally efficient air quality forecasting tool: implementation of STOPS v1.5 model into CMAQ v5.0.2 for a prediction of Asian dust. Geoscientific Model Development 9, 3671–3684. https://doi.org/10.5194/gmd-9-3671-2016

(8) **Souri, A.H.**, Choi, Y., Li, X., Kotsakis, A., Jiang, X., 2016. A 15-year climatology of wind pattern impacts on surface ozone in Houston, Texas. Atmospheric Research 174–175, 124–134. https://doi.org/10.1016/j.atmosres.2016.02.007

(7) **Souri, A.H.**, Choi, Y., Jeon, W., Li, X., Pan, S., Diao, L., Westenbarger, D.A., 2016. Constraining NO_x emissions using satellite NO_2 measurements during 2013 DISCOVER-AQ Texas campaign. Atmospheric Environment 131, 371–381. https://doi.org/10.1016/j.atmosenv.2016.02.020

(6) Diao, L., Roy, A., Czader, B., Pan, S., Jeon, W., **Souri, A.H.**, Choi, Y., 2016. Modeling the effect of relative humidity on nitrous acid formation in the Houston area. Atmospheric Environment 131, 78–82. https://doi.org/10.1016/j.atmosenv.2016.01.053

(5) Pan, S., Choi, Y., Roy, A., Li, X., Jeon, W., **Souri, A.H.**, 2015. Modeling the uncertainty of several VOC and its impact on simulated VOC and ozone in Houston, Texas. Atmospheric Environment 120, 404–416. https://doi.org/10.1016/j.atmosenv.2015.09.029

(4) Choi, Y., **Souri, A.H.**, 2015. Chemical condition and surface ozone in large cities of Texas during the last decade: Observational evidence from OMI, CAMS, and model analysis. Remote Sensing of Environment 168, 90–101. https://doi.org/10.1016/j.rse.2015.06.026

(3) Sharifi, M.A., **Souri, A.H.**, 2015. A hybrid LS-HE and LS-SVM model to predict time series of precipitable water vapor derived from GPS measurements. Arab J Geosci 8, 7257–7272. https://doi.org/10.1007/s12517-014-1716-0

(2) **Souri, A.H.**, Vajedian, S., 2015. Dust storm detection using random forests and physical-based approaches over the Middle East. J Earth Syst Sci, 124, 1127–1141. https://doi.org/10.1007/s12040-015-0585-6

(1) Choi, Y., **Souri, A.H.**, 2015. Seasonal behavior and long-term trends of tropospheric ozone, its precursors and chemical conditions over Iran: A view from space. Atmospheric Environment 106, 232–240. https://doi.org/10.1016/j.atmosenv.2015.02.012

Projects and Technical Reports

EDF's MethaneSAT/MethaneAIR, 2020-present, OSSEs simulations (synthetic L1 and L2 products), geo-location corrections using computer vision techniques, denoising

NASA AURA (2), 2021-present, Spatial heterogeneity, satellite-based HCHO/NO_2 ratios

NASA AURA (1), 2019-2020, Application of OMI/OMPS satellites in atmospheric sciences

GIST, 2018, Development of a convective transport scheme for the CMAQ model

NIER, 2017, Integrating surface and satellite observations to provide an optimal estimate of surface distribution of particulate matters

TCEQ, 2016, Biomass burning impacts on air quality in the U.S.: Evidence from the CMAQ model in 2012-2014

AQRP, 2015, Inverse modeling of NO_x emissions in Southeast Texas using OMI NO_2

Professional Community Service

Journal Article Reviewer (40 papers): *Nature Communication, Geophysical Research Letter, Journal of Geophysical Research: Atmospheres, Atmospheric Chemistry and Physics, Atmospheric Environment, Atmospheric Research, Environmental Science and Technology, Scientific Reports, Remote Sensing, Remote Sensing Letters, International Journal of Remote Sensing, Asia-Pacific*

Journal of Atmospheric Sciences, Elementa: Science of the Anthropocene, Atmospheric Pollution Research, Arabian Journal of Geosciences, Resources, Conservation and Recycling.

AGU Liaison, 2018, Washington D.C.

Conferences, Meetings and Symposia

Invited

- **Souri A.,** Quantifying Changes in Man-made Emissions During the 2020 Lockdown Using Satellite Observations, Seminar for Harvard-Smithsonian Center for Astrophysics, 2017, Cambridge, Massachusetts.

Souri, A., Chance, K., Sun, K., Liu, X., Johnson, M.S., 2021. Modeling Spatial Heterogeneity in Satellite Validation Against Pointwise Measurements. Presented at the AGU Fall Meeting 2021, AGU.

Pouyaei, A., Sadeghi, B., Choi, Y., Jung, J., **Souri, A.**, Zhao, C., Song, C.H., 2021. Development and implementation of a physics-based convective mixing scheme in the Community Multiscale Air Quality (CMAQ) modeling framework. Presented at the AGU Fall Meeting 2021, AGU.

Hall, K., Wang, H., **Souri, A**., Chance, K., Liu, X., 2021. Tropospheric Ozone Anomalies Associated with Atmospheric Rivers. Presented at the AGU Fall Meeting 2021, AGU.

Santos, F., Geddes, J., **Souri, A.**, 2021. Classifying the Diurnal Variability in the Column Measurements of NO2 and Implications for Geostationary Monitoring. Presented at the AGU Fall Meeting 2021, AGU.

- **Amir Souri.** Potential Application of Satellite-Based Water Vapor Columns for Improving Numerical Weather Models, with a View Towards Geostationary Monitoring, TEMPO, Varysian Hydromet Network

Amir Souri, Juseon Bak, Caroline R Nowlan, Gonzalo Gonzalez Abad, Yeonjin Jung, David Wong, Xiong Liu, Kelly Chance, Quantification of the Impact of the Lockdown on NOx and NMVOC Emissions over Europe and Implications for Surface Ozone and HOx Chemistry: A Non-Linear Multi-Species Inverse Modeling using TROPOMI, AGU 2020, Virtual.

Christopher Chan Miller, Jenna Samra, Kang Sun, Bruce C Daube, Jonathan E Franklin, Joshua Simon Benmergui, Peter Cheimets, Xiong Liu, **Amir Souri**, Yeonjin Jung, Kelly Chance, Martin H Ettenberg, Scottt Milligan, Steven C Wofsy, First results from MethaneAIR: An airborne simulation platform for the MethaneSAT mission, AGU 2020, Virtual.

Heesung Chong, Gonzalo Gonzalez Abad, Jhoon Kim, Christopher Chan Miller, Alfonso Saiz-Lopez, Rafael P Fernandez, Caroline R Nowlan, Xiong Liu, Kelly Chance, Ewan O'Sullivan, **Amir Souri**, Retrieval of bromine monoxide from the Ozone Mapping and Profiler Suite Nadir Mapper onboard the Suomi National Polar-orbiting Partnership satellite, AGU 2020, Virtual.

Souri A. H., Caroline R. Nowlan, Gonzalo González Abad, Lei Zhu, Donald R. Blake, Alan Fried, Andrew J. Weinheimer, Jung-Hun Woo, Qiang Zhang, Christopher E. Chan Miller, Xiong Liu,

and Kelly Chance, Non-linear Joint Inversion of NOx and NMVOC Emissions Using Satellite Observations over East Asia, 19th CMAS Annual Meeting, Oct 2020, Virtual.

Adams, T.J., Geddes, J.A., Abad, G.G., **Souri, A.H.**, Miller, C., Nowlan, C.R., Jung, Y. and Chance, K. Early Results and New Insights into Tropospheric NO_2 Variability from a Network of Pandora Spectrometers in a Coastal Urban Environment. In 100th American Meteorological Society Annual Meeting. 2020, Boston, MA.

Souri A.H., H. Wang, G. Gonzalez Abad, X. Liu, and K. Chance, Corn Sweat, Heat Wave, The Midwest AGU Fall Meeting, San Francisco, CA, 2019.

Abad, G.G., Miller, C.C., O'Sullivan, E., Nowlan, C.R., Wang, H., Sun, K., **Souri, A. H.**, Jung, Y., Villanueva, N., Liu, X. and Chance, K., 2019, December. MEaSUREs project for H_2CO, $C_2H_2O_2$ and H_2O long-term consistent records from GOME to OMI and beyond. AGU Fall Meeting 2019. San Francisco, CA.

Chance K., et al., TEMPO Green Paper: Chemistry, physics, and meteorology experiments with the Tropospheric Emissions: monitoring of pollution instrument, SPIE 11151, Sensors, Systems, and Next-Generation Satellites XXIII, 111510B, 2019. https://doi.org/10.1117/12.2534883.

Souri A.H., H. Wang, G. Gonzalez Abad, X. Liu, and K. Chance, Quantifying the Impact of Evapotranspiration From Crops on an Extreme Heat Wave Event in the Midwestern U.S.: A Top-down Constraint from Satellites using the Local Ensemble Transform Kalman Filter (LETKF), AMS Joint Satellite Conference, Boston, MA, 2019.

Wang H., **A. H. Souri**, G. Gonzalez Abad, X. Liu, and K. Chance, Total Column Water Vapor product derived from OMI, AMS Joint Satellite Conference, Boston, MA, 2019.

Chance K., X. Liu, G. González Abad, J. Bak, C. Chan Miller, Y. Jung, C. R. Nowlan, **A. H. Souri**, R. M. Suleiman, and H. Wang, North American Pollution Measurements from Geostationary Orbit with Tropospheric Emissions: Monitoring Of Pollution (TEMPO), AMS Joint Satellite Conference, Boston, MA, 2019.

Jung Y., G. González Abad, C. R. Nowlan, **A. H. Souri**, K. Chance, X. Liu, O. Torres, and C. Ahn, A measurement-based explicit aerosol correction for OMI HCHO retrievals, AMS Joint Satellite Conference, Boston, MA, 2019.

Nowlan C. R., G. González Abad, L. Zhu, Y. Jung, K. Chance, **A. H. Souri**, L. Flynn, G. Jaross, and C. Seftor, Formaldehyde Products from the OMPS Nadir Mappers on Suomi-NPP and NOAA-20, AMS Joint Satellite Conference, Boston, MA, 2019

Souri A.H. et al., Response of Hurricane Harvey's Rainfall to Anthropogenic Aerosols, GEOS-Chem Meeting (IGC9), Harvard University, 2019, Cambridge, Massachusetts.

Souri, A.H., Gonzalez Abad, G., Nowlan C. R., Liu X., Chance K., Constraining NOx and NMVOC Emissions using OMPS during KORUS-AQ Campaign and Implications for Ozone Formation, AGU Fall Meeting, Washington, D.C., 2018.

Souri A.H. et al., Response of Hurricane Harvey's Precipitation to Anthropogenic Aerosols, AGU Fall Meeting, 2018, Washington D.C.

- **Souri A.H.,** Response of Hurricane Harvey to Anthropogenic Aerosols, Starts and Planets Seminar, Harvard University, 2018, Cambridge, Massachusetts.

Jung J., Choi Y., **Souri A.H.,** and Jeon W., Data assimilation of GOCI AOD and surface PM observations on aerosol modeling over the Korean Peninsula during KORUS-AQ campaign, EGU, 2018, Vienna, Austria.

Kotsakis A., Choi Y., **Souri A.H.**, Jeon W., and Flynn J., Impacts of Biomass Burning on Free-Tropospheric Ozone Photochemistry over the Southern United States, AMS, 2018, Austin.

- **Souri A.H.,** Constraining NO_x emissions using spaceborne and airborne remotely sensed NO_2 observations. Harvard-Smithsonian Center for Astrophysics, 2017, Cambridge, Massachusetts.

Jeon W., Jung J., Choi Y., **Souri A.H.,** and Long-term variability of wind patterns at hub-height over Texas, AGU, 2017, New Orleans, Louisiana.

Jung J., Choi Y., **Souri A.H.,** and Jeon W., Chemical data assimilation of geostationary aerosol optical depth and PM surface observations on regional aerosol modeling over the Korean Peninsula during KORUS-AQ campaign, AGU, 2017, New Orleans, Louisiana.

Kotsakis A., Choi Y., **Souri A.H.,** Jeon W., and Flynn J. H., Characterization of Wind Patterns over Texas Using Self-Organizing Maps: Impact on Dallas-Fort Worth Long Term Ozone Trends, AGU, 2017, New Orleans, Louisiana.

Choi Y., **Souri A.H.,** Jeon W., Kochanski A., Diao L., Mandel J., Bhave P., and Pan S., The impact of biomass burning emissions on inorganic aerosols and their precursors in the US: A three-year regional modeling evidence, AGU, 2017, New Orleans, Louisiana.

Souri A.H., Choi Y., Pan S., Curci G., Janz S. J., Kowalewski M. G., Liu J., Herman J. R., and Weinheimer A. J., Application of High Resolution Air-Borne Remote Sensing Observations for Monitoring NOx Emissions, AGU, 2017, New Orleans, Louisiana.

Souri A.H., Choi Y., Jeon W., Kochanski A., Diao L., Mandel J., Bhave P., and Pan S., Quantifying the impact of biomass burning on major inorganic aerosols in the US: The role of emissions and water released from biomass, MAC-MAQ, 2017, UC Davis, Sacramento, California

Kotsakis A., Choi Y., Flynn J. H., Erickson M., **Souri A.**, Lefer B., Gary M., Estes M., Westenbarger D., Impact of Synoptic & Global Scale Features on the Year-to year variablity of ozone exceedances in Houston, AMS 18th Conference on Atmospheric Chemistry, January 2013, New Orleans, Louisiana.

- **Souri, A. H.,** Inverse modeling using satellite NO_2 measurements, December, 2015, Texas Commission on Environmental Quality, Austin, TX.

Souri, A. H., et al., Nitrogen Oxide Emissions Constrained by Space-based Observations of NO2 column over Southeast Texas, October 2015, Community Modeling and Analysis meeting, Chapel Hill, NC.

Choi, Y., **Souri, A. H.,** Chemical Condition and Surface Ozone in Large Cities of Texas During the Last Decade: Observational Evidence from OMI, CAMS, and Model Analysis, October 2015, Community Modeling and Analysis meeting, Chapel Hill, NC.

Souri, A. H., Mohammadi, A., and Sharifi, M. A.: A New Prompt for Building Extraction in High Resolution Remotely Sensed Imagery, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XL1/W3, 405-408, doi:10.5194/isprsarchives-XL-1-W3-405-2013, 2013.

Technical Skills

Programming: MATLAB, Python, FORTRAN, Linux Shell

Models: WRF, CMAQ, GEOS-Chem, WRF-Chem, MEGAN, WRF-SFIRE, WRF-DA (3D and 4D- var), GEOS-Chem TOMAS, HYSPLIT

Highly-skilled in high performance computing systems (HPC): Compiled, setup, configured, ran numerous libraries, models, scripts, and tools at Harvard's Odyssey/Cannon, SAO's Hydra, and UofH's Spock, Maxwell, and Opuntia clusters.

Languages: English (proficient), Persian (mother tongue), Arabic (basic knowledge)

Github: https://github.com/ahsouri

Digital Background

Google Scholar: https://scholar.google.com/citations?user=CyNCGRAAAAAJ&hl=en

ResearchGate: https://www.researchgate.net/profile/Amir_Hossein_Souri

LinkedIn: https://www.linkedin.com/in/amirhsouri/

Twitter: https://twitter.com/AmirHSouri1