

# Felix C. Seidel | CV

Jet Propulsion Laboratory / California Institute of Technology

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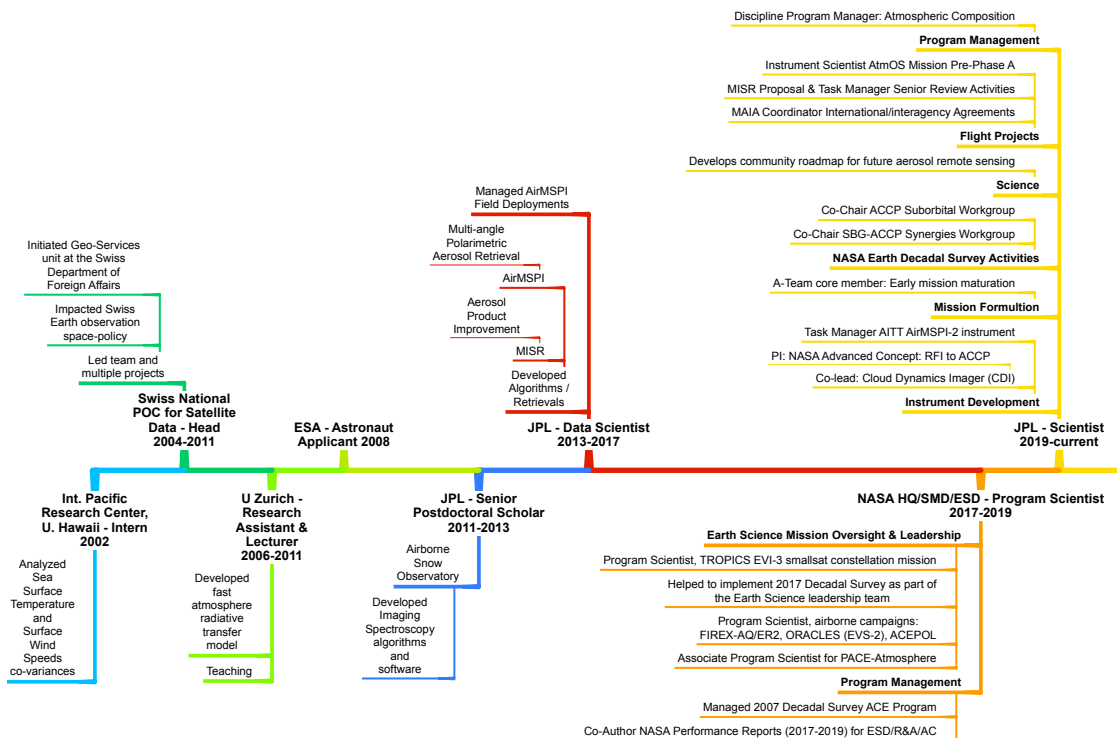


Passionate about NASA missions to generate the best possible science and benefits to society.  
Visionary about future remote sensing capabilities to enable breakthroughs in climate and air quality research.

## Summary

Felix C. Seidel is a Scientist and Program Manager at the Jet Propulsion Laboratory (JPL). He holds a Ph.D. in aerosol remote sensing and atmospheric radiative transfer. His main research interest lies in the quantification of solar energy absorption by aerosols and its impact on atmospheric dynamics and air quality. His skills and experiences are spanning across program management, science leadership, science-systems engineering, airborne and satellite instrument concept development, as well as remote sensing data analysis. He excels at 'big picture' thinking and at creating strong teams with a vision for collaborative and effective solutions to advance climate and air quality research. His main goal is to enhance societal impacts through satellite observations and to unlock new knowledge on clouds and atmospheric dynamics. He is fast learning, goal-oriented, thriving on challenges and people-centered activities, reliable, persistent, optimistic, and he uses the *Positive Influence* leadership style (based on *Birkman*<sup>®</sup> 360<sup>°</sup> personality feedback).

## EXPERIENCE OVERVIEW



## EXPERIENCE

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### Scientist

JPL/Caltech, Pasadena CA 2019–present

- Instrument Scientist: Defines the Cloud Dynamics Imager instrument requirements to fulfill the anticipated relevant AtmOS mission science requirements
- Program Manager: Responsible for the *Atmospheric Composition* program. Fostering the relevant JPL Atmospheric Composition research community. Interfacing with senior JPL and HQ management.
- Science: Develops a community science initiative on future priorities in aerosol remote sensing to build collaboration amongst mid-career experts
- Mission Formulation: Assists in maturing advanced mission concept studies as part of the JPL architecture team (A-Team)
- Mission Formulation: Helps to define the suborbital element of the Decadal Survey *Aerosol, Cloud, Convection, Precipitation* (ACCP) observing system
- Instrument Development: Developed an instrument concept to quantify atmospheric dynamics based on 3-D cloud-motion winds
- Task Management: Leads teams on the *Airborne Multiangle SpectroPolarimetric Imager II* and the *Multi-angle Imaging SpectroRadiometer* (MISR) data product projects

### Program Scientist

NASA Headquarters, Washington DC. 2017–2019

- Supported the management and oversight of NASA Earth Science missions, and research programs
- Was responsible for the scientific content of the *Time-Resolved Observations of Precipitation structure and storm Intensity with a Constellation of Smallsats* (TROPICS) mission
- Helped to implement the recommendations by the National Academy of Sciences' 2017 *Decadal Survey for Earth Science and Applications from Space*
- Managed the *Aerosol Cloud Ecosystem* (ACE) pre-formulation study
- Responsible for the scientific content of the *ObseRvations of Aerosols above CLouds and their intEractionS* (ORACLES) airborne mission
- Managed the *Aerosol Characterization from Polarimeter and Lidar* (ACEPOL) flight campaign
- Program & Mission Scientist for an element for the *Fire Influence on Regional to Global Environments and Air Quality* (FIREX-AQ) flight campaign

### Data Scientist

JPL/Caltech, Pasadena CA 2016–2017

- Helped to develop and improve NASA aerosol data products using analytics and optimization techniques

### Technologist/Scientific SW Engineer

JPL/Caltech, Pasadena CA 2013–2016

- Contributed to NASA's current and next-generation satellite data products
- Managed and led NASA airborne campaigns with ER-2 high-altitude aircraft
- Found causes for artifacts in atmospherically corrected imaging spectroscopy data of coastal and ocean waters and suggested related improvements

### Senior Postdoctoral Scholar

JPL/Caltech, Pasadena CA 2011–2013

- Developed operational data processing software to extract and visualize key information to end-users
- Described retrievals of snow albedo and radiative forcing by light absorbing impurities using imaging spectroscopy
- Discovered that retrievals of optical snow grain size are biased under snowmelt conditions

### Astronaut Applicant

European Space Agency 2008

- Demonstrated skills to pass multiple selections

### Research Assistant & Lecturer

University of Zurich, Switzerland 2006–2011

- Developed a fast atmosphere radiative transfer model
- Gained teaching experience

### Head

NPOC@RSL/UZH, Zurich, Switzerland 2004–2011

- Influenced Swiss Earth observation space-policy
- Consulted Swiss government up to executive level
- Initiated Geo-Services unit at the Department of Foreign Affairs
- Oversaw a team and managed multiple projects

### Intern

Int. Pacific Research Center, U. Hawaii 2002

- Helped to better understand the interactions between Sea Surface Temperature and Surface Wind Speeds using satellite data.

### Pilot

Glider Tow, Switzerland 1995–2011

## EDUCATION

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### Ph.D. Natural Sciences

University of Zurich, Switzerland 2004–2011

- Developed a fast atmosphere radiative transfer model
- Thesis: Radiative Transfer and Aerosol Remote Sensing. <https://doi.org/10.5167/uzh-48713>  
Approved by the Faculty of Science on the basis of expert reviews by Prof. Dr. sc. nat. M. Schaepman (UZH), Dr. A. Kokhanovsky (EUMETSAT) and Dr. A. Lyapustin (NASA-GSFC)

### Summer School

European Space Agency, Frascati, Italy 2008

- Earth Observation Summer School on Earth System Monitoring and Modelling

## M.S. Atmospheric & Climate Sciences

Swiss Fed. Inst. of Technology (ETHZ) 1998–2004

- Thesis: Temporal and Spatial Variations in Remotely Sensed Atmospheric Water Vapor over North Africa from 1983 to 2003.

## AWARDS

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**2020:** JPL Award for leading research and outreach activities related to the impact of the COVID-19 regulations on air quality.

**2019:** NASA Group Achievement Award for outstanding scientific achievements of the Observations of Aerosols above Clouds and their Interactions (ORACLES) airborne Earth science mission team.

**2017:** NASA Group Achievement Award for exceptional AirMSPI science planning, sensor operations, ground support, calibration, and data processing during the CalWater-2, RADEX, IMPACT-PM, and ORACLES campaigns.

**2017:** Jet Propulsion Laboratory Bonus Award for success on the ORACLES Field campaign.

**2014:** NASA Group Achievement Award for a highly successful Airborne Snow Observatory demonstration opening a new era in quantitative knowledge of snow water resources.

**2014:** NASA Group Achievement Award for outstanding efforts resulting in the successful deployment of the Airborne Multiangle Spectropolarimetric Imager in NASA's PODEX, pre-HyspIRI, and SEAC4RS campaigns.

**2011:** Outstanding Student Poster Award of the European Geosciences Union.

## MEMBERSHIPS

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### Science & Mission Project Teams.....

**2021–present:** NASA Atmospheric Observing System (AtmOS) Mission Pre-Phase A Team

## PRESENTATIONS

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2 Town Halls, 11 Invited Talks, 20+ Conference Talks, 60+ Conference Abstracts

### Town Halls.....

**2019:** AGU Town Hall TH15F: NASA's Decadal Survey Study: Aerosols, Clouds, Convection, Precipitation (ACCP). *Chair:* Felix Seidel. *Speakers:* Sandra Cauffman (NASA Headquarters), Hal Maring (NASA Headquarters), Duane Edward Waliser (NASA Jet Propulsion Laboratory, California Institute of Technology), Vickie E. Moran (NASA Goddard Space Flight Center)

**2018:** AMS Town Hall: CYGNSS and TROPICS: NASA SmallSat Missions to Probe Tropical Cyclones. *Chairs:* Bradley T. Zavodsky (NASA Marshall Space Flight Center), Christopher Ruf (Univ. of Michigan, Ann Arbor). *Speakers:* William J. Blackwell (MIT Lincoln Laboratory), Jason P. Dunion

**2019–present:** NASA MAIA Project Team

**2013–2017; 2019–present:** NASA MISR Project Team

**2017–2021:** NASA Decadal Survey Aerosol / Cloud / Convection / Precipitation (ACCP) Mission Pre-formulation Study Team

**2014–2020:** NASA ORACLES Earth Venture Mission Science Team

**2014–2018:** NASA ACE Mission Pre-formulation Study

**2014–2017:** NASA PACE Science Team

### Working Groups.....

**2019–present:** Decadal Survey ACCP Suborbital Observing System Element Workgroup

**2020–2021:** Decadal Survey ACCP & SBG Synergies Workgroup

**2010–2013:** Working Group on Aerosol Remote Sensing from Space (International Space Science Institute, Switzerland)

**2009–2011:** Swiss interdepartmental coordination committee on space issues, working group GMES (Global Monitoring for Environment and Security, now: Copernicus)

**2009–2011:** Swiss interdepartmental working group on remote sensing

### Professional Unions & Societies.....

**2011–present:** American Geophysical Union (AGU)

**2010–2011:** European Geosciences Union (EGU)

**2006–2011:** Institute of Electrical and Electronics Engineers (IEEE)

**2005–2011:** International Society for Optics and Photonics (SPIE)

**1994–2011:** Aero-Club Switzerland

(NOAA/AOML/HRD), Christopher S. Ruf (Univ. of Michigan, Ann Arbor, **Felix Seidel** (NASA Headquarters), James Doyle (NRL, Monterey)

### Invited Talks as of 2018.....

**2018: Seidel, F.C.**, *Discussion on the Present and Future of Aerosol Remote Sensing*, GRASP Cloud Meeting, NASA Goddard Space Flight Center, Greenbelt MD, Dec. 2018

**2018: Seidel, F.C.**, *Decadal Survey, A&CCP, and a Discussion on the Future of Aerosol Remote Sensing*, GRASP Cloud Meeting, NASA Goddard Space Flight Center, Greenbelt MA, Dec. 2018

**2018: Seidel, F.C.**, Maring, H., Lefer, B., Skofronick-Jackson, G., Dutta, M., Haynes, J. *NASA Headquarters Perspectives on the Decadal Survey*, A-CCP Study Planning Workshop, NASA Langley Research Center, Hampton VA, Oct./Nov. 2018

**2018: Seidel, F.C.**, Maring, H., Lefer, B., Skofronick-Jackson, G., *2017 Decadal Survey for Earth science and applications from space*, 6th AeroSAT workshop, NOAA Center for Weather and Climate Prediction, College Park MD, Oct. 2018

**2018: Seidel, F.C.**, Al-Saadi, J., Forst, G., et al., *NASA ER-2 Remote Sensing Contributions to FIREX-AQ*, FIREX-AQ Science Team Meeting, NOAA Earth System Research Laboratory, Boulder CO, Oct. 2018

**2018: Seidel, F.C.**, *NASA 2017 Decadal Survey*, 7th International EarthCARE Science Workshop, Bonn DE, Jun. 2018

**2018: Seidel, F.C.**, *NASA assets (Data, Instruments, Platforms) that could support EarthCARE Cal/Val activities*, 7th International EarthCARE Science Workshop, Bonn DE, Jun. 2018

**2018: Seidel, F.C.**, *Town Hall: Key Elements of the Decadal Survey for Earth Science & Applications and the Earth Venture Program*, AMS 33rd Conference on Hurricanes and Tropical Meteorology, Ponte Vedra FL, Apr. 2018

**2018: Seidel, F.C.**, *How Aerosol Influence the Environment and NASA Earth Science*, Seminar of the Department of Atmospheric and Oceanic Sciences, University of Maryland, College Park MD, Apr. 2018

**2018: Seidel, F.C.**, *Why are aerosols so important? - My view on various effects of aerosols*, Ocean Ecology Laboratory Seminar, NASA Goddard Space Flight Center, Greenbelt MD, Feb. 2018

**2017: Seidel, F.C.**, *How To Engage with Upcoming NASA Missions for Air quality and Health: MAIA+TEMPO Early Adopter program*, NASA Health and Air Quality Applied Sciences Team Meeting, Columbia University, Lamont-Doherty Earth Observatory, Palisades NY, Nov. 2017

### Conference Talks.....

**2005–2019:** Numerous talks at international conferences, as well as seminars and colloquia at universities and research institutions, including:

- Institute of Electrical and Electronics Engineers (IEEE) Geoscience and Remote Sensing Symposium (IGARSS)
- American Meteorological Society (AMS) Annual Meeting & Conference on Hurricanes and Tropical Meteorology
- American Geophysical Union (AGU) Fall Meeting
- International Radiation Symposium (IRS)
- International society for optics and photonics (SPIE) Remote Sensing of Clouds and the Atmosphere
- European Geosciences Union (EGU) General Assembly
- HyspIRI Science and Applications Workshop
- International EarthCARE Science Workshop
- MISR Data Users Science Symposium
- International Space Science Institute, Switzerland
- ESA Earth Observation Summer School on Earth System Monitoring and Modelling at ESRIN
- Wilhelm and Else Heraeus Seminar, Physikzentrum Bad Honnef, Germany
- NASA Jet Propulsion Laboratory
- NASA Goddard Space Flight Center
- NASA Langley Research Center
- NASA Ames Research Center
- NOAA Earth System Research Laboratory
- NOAA Center for Weather and Climate Prediction
- Columbia University, Lamont-Doherty Earth Observatory
- University of Maryland

## PUBLICATIONS

27 Papers, 2 Books / Chapters, 2 Theses,  
60+ Proceedings or Abstracts, 21 Other Articles or Reports

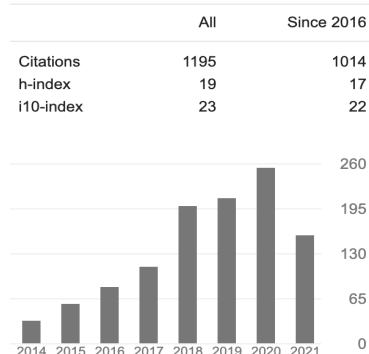
**ORCID:** <http://orcid.org/0000-0002-4282-2198>

**WoS ResearcherID:** <https://publons.com/researcher/B-4959-2019>

**ResearchGate:** [https://www.researchgate.net/profile/Felix\\_Seidel](https://www.researchgate.net/profile/Felix_Seidel)

**Scopus:** <https://www.scopus.com/authid/detail.uri?authorId=12646426700>

**Google Scholar:** <https://scholar.google.com/citations?user=tBEvjsgAAAAJ>



### Peer-Reviewed Papers.....

**2021:** Redemann, J., Wood, R., Zuidema, P., Doherty, S. J., Luna, B., LeBlanc, S. E., Diamond, M. S., Shinozuka, Y., Chang, I. Y., Ueyama, R., Pfister, L., Ryoo, J.-M., Dobracki, A. N., da Silva, A. M., Longo, K. M., Kacenelenbogen, M. S., Flynn, C. J., Pistone, K., Knox, N. M., Piketh, S. J., Haywood, J. M., Formenti, P., Mallet, M., Stier, P., Ackerman, A. S., Bauer, S. E., Fridlind, A. M., Carmichael, G. R., Saide, P. E., Ferrada, G. A., Howell, S. G., Freitag, S., Cairns, B., Holben, B. N., Knobelspiesse, K. D., Tanelli, S., L'Ecuyer, T. S., Dzambo, A. M., Sy, O. O., McFarquhar, G. M., Poellot, M. R., Gupta, S., O'Brien, J. R., Nenes, A., Kacarab, M., Wong, J. P. S., Small-Griswold, J. D., Thornhill, K. L., Noone, D., Podolske, J. R., Schmidt, K. S., Pilewskie, P., Chen, H., Cochrane, S. P., Sedlacek, A. J., Lang, T. J., Stith, E., Segal-Rozenhaimer, M., Ferrare, R. A., Burton, S. P., Hostetler, C. A., Diner, D. J., **Seidel, F.C.**, Platnick, S. E., Myers, J. S., Meyer, K. G., Spangenberg, D. A., Maring, H., and Gao, L.: An overview of the ORACLES (ObseRvations of Aerosols above CLouds and their intEractionS) project: aerosol–cloud–radiation interactions in the southeast Atlantic basin, *Atmospheric Chemistry Physics*, 21, 1507–1563, doi:10.5194/acp-21-1507-2021. <https://doi.org/10.5194/acp-21-1507-2021>

**2020:** Knobelspiesse, K., Barbosa, H. M.J., Bradley, C., Bruegge, C., Cairns, B., Chen, G., Chowdhary, J., Cook, A., Di Noia, A., van Diedenhoven, B., Diner, D. J., Ferrare, R., Fu, G., Gao, M., Garay, M., Hair, J., Harper, D., van Harten, G., Hasekamp, O., Helmlinger, M., Hostetler, C., Kalashnikova, O., Kupchock, A., Longo De Freitas, K., Maring, H., Martins, J. V., McBride, B., McGill, M., Norlin, K., Puthukkudy, A., Rheingans, B., Rietjens, J., **Seidel, F.C.**, da Silva, A., Smit, M., Stamnes, S., Tan, Q., Val, S., Wasilewski, A., Xu, F., Xu, X., and Yorks, J. The Aerosol Characterization from Polarimeter and Lidar (ACEPOL) airborne field campaign, *Earth System Science Data*, 12, 2183–2208, doi:10.5194/essd-12-2183-2020. <https://doi.org/10.5194/essd-12-2183-2020>

**2020:** Garay, M. J., Witek, M. L., Kahn, R. A., **Seidel, F.C.**, Limbacher, J. A., Bull, M. A., Diner, D. J., Hansen, E. G., Kalashnikova, O. V., Lee, H., Nastan, A. M., and Yu, Y., Introducing the 4.4 km spatial resolution Multi-Angle Imaging SpectroRadiometer (MISR) aerosol product, *Atmospheric Measurement Techniques*, 13, 593–628, doi:10.5194/amt-13-593-2020. <https://doi.org/10.5194/amt-13-593-2020>

**2020:** Fu, G., Hasekamp, O., Rietjens, J., Smit, M., Di Noia, A., Cairns, B., Wasilewski, A., Diner, D., **Seidel, F.**, Xu, F., Knobelspiesse, K., Gao, M., da Silva, A., Burton, S., Hostetler, C., Hair, J., and Ferrare, R., Aerosol retrievals from different polarimeters during the ACEPOL campaign using a common retrieval algorithm, *Atmospheric Measurement Techniques*, 13, 553–573, doi:10.5194/amt-13-553-2020. <https://doi.org/10.5194/amt-13-553-2020>

**2019:** Ceamanos, X., Moparthy, S., Carrer, D., and **Seidel, F.C.**, Assessing the potential of geostationary satellites for aerosol remote sensing based on critical surface albedo, *Remote Sensing*, 11(24), 2958, doi:10.3390/rs11242958. <https://doi.org/10.3390/rs11242958>

**2019:** Thompson, D.R., Babu, K.N., Braverman, A.J., Eastwood, M.L., Green, R.O., Hobbs, J.M., Jewell, J.B., Kindel, B., Massie, S., Mishra, M., Mathur, A., Natraj, V., Townsend, P.A., **Seidel, F.C.**, Turmon, M.J., Optimal estimation of spectral surface reflectance in challenging atmospheres, *Journal of Remote Sensing of the Environment*, 232, 1112585, doi:10.1016/j.rse.2019.111258. <https://doi.org/10.1016/j.rse.2019.111258>

2019: Knobelspiesse, K., Tan, Q., Bruegge, C., Cairns, B., Chowdhary, Jacek., van Diedenhoven, B., Diner, D., Ferrare, R., van Harten, G., Jovanovic, V., Ottaviani, M., Redemann, J., **Seidel, F.C.**, Sinclair, K., Intercomparison of airborne multi-angle polarimeter observations from the Polarimeter Definition Experiment, *Applied Optics*, 58, 650–669, doi:10.1364/AO.58.000650. <https://doi.org/10.1364/AO.58.000650>

2018: **Seidel, F.C.**, Stavros, E.N., Cable, M.L., Green, R., Freeman, A., Imaging Spectroscopy Compatibility with Broadband Multispectral Sensor: A Case Study using the Airborne Visible Infrared Imaging Spectrometer (AVIRIS) to simulate the Operational Land Imager (OLI), *Journal of Remote Sensing of the Environment*, 215, 157–169, doi:10.1016/j.rse.2018.05.030. <https://doi.org/10.1016/j.rse.2018.05.030>

2018: van Harten, G., Diner, D.J., Daugherty, B.J.S., Rheingans, B.E., Bull, M.A., **Seidel, F.C.**, Chipman, R.A., Cairns, B., Wasilewski, A.P., Knobelspiesse, K.D., Calibration and validation of Airborne Multiangle SpectroPolarimetric Imager (AirMSPI) polarization measurements. *Applied Optics*, 57(16), 4499–4513, doi:10.1364/AO.57.004499. <https://doi.org/10.1364/AO.57.004499>

2018: Kalashnikova, O., Garay, M.J., Bates, K.H., Kenseth, C.M., Kong, W., Cappa, C.D., Lyapustin, A., Jonsson, H.H., **Seidel, F.C.**, Xu, F., Diner, D.J., Seinfeld, J.H., Photopolarimetric sensitivity to black carbon content of wildfire smoke: Results from the 2016 IMPACT-PM field campaign, *JGR-Atmospheres*, 123, 5376–5396, doi:10.1029/2017JD028032. <https://doi.org/10.1029/2017JD028032>

2018: Xu, F., van Harten, G., Diner, D.J., Davis, A.B., **Seidel, F.C.**, Rheingans, B., Tosca, M., Alexandrov, M.A., Cairns, B., Ferrare, R.A., Burton, S.P., Fenn, M.A., Hostetler, C.A., Wood, R., Redemann, J., Coupled Retrieval of Liquid Water Cloud and Aerosol Above Cloud Properties using the Airborne Multiangle SpectroPolarimetric Imager (AirMSPI), *JGR-Atmospheres*, 123, 3175–3204, doi:10.1002/2017JD027926. <https://doi.org/10.1002/2017JD027926>

2018: Witek, M.L., Garay, M.J., Diner, D.J., Bull, M.A., **Seidel, F.C.**, New approach to the retrieval of AOD and its uncertainty from MISR observations over dark water. *Atmospheric Measurement Techniques*, 11, 429–439, doi:10.5194/amt-11-429-2018. <https://doi.org/10.5194/amt-11-429-2018>

2017: Witek, M.L., Diner, D.J., Garay, M.J., Xu, F., Bull, M.A., **Seidel, F.C.**, Improving MISR AOD Retrievals With Low-Light-Level Corrections for Veiling Light, *IEEE Transactions on Geoscience and Remote Sensing*, 56(3), 1251–1268, doi:10.1109/TGRS.2017.2727342. <https://doi.org/10.1109/TGRS.2017.2727342>

2017: Tosca, M.G., Campbell, J., Garay, M., Lolli, S., **Seidel, F.C.**, Marquis, J., Kalashnikova, O., Attributing Accelerated Summertime Warming in the Southeast United States to Recent Reductions in Aerosol Burden: Indications from Vertically-Resolved Observations, *Remote Sensing*, 9(7), 674, doi:10.3390/rs9070674. <https://doi.org/10.3390/rs9070674>

2017: Xu, F., van Harten, G., Diner, D.J., Kalashnikova, O., **Seidel, F.C.**, Bruegge, C.J., Dubovik, O., Coupled retrieval of aerosol properties and land surface reflection using the Airborne Multiangle SpectroPolarimetric Imager (AirMSPI), *Journal of Geophysical Research: Atmospheres*, 122, 7004–7026, doi:10.1002/2017JD026776. <https://doi.org/10.1002/2017JD026776>

2016: **Seidel, F.C.**, Rittger, K., Skiles, S.M., Molotch, N.P., Painter, T.H., 2016. Case study of spatial and temporal variability of snow cover, grain size, albedo and radiative forcing in the Sierra Nevada and Rocky Mountain snowpack derived from imaging spectroscopy. *The Cryosphere*, 10, 1229–1244, doi:10.5194/tc-10-1229-2016. <https://doi.org/10.5194/tc-10-1229-2016>

2016: Xu, F., Dubovik, O., Zhai, P.W., Diner, D.J., Kalashnikova, O., **Seidel, F.C.**, Litvinov, P., Bovchaliuk, A., Garay, M., van Harten, G., Davis, A.B., 2016. Joint retrieval of aerosol and water-leaving radiance from multispectral, multiangular and polarimetric measurements over ocean, *Atmospheric Measurement Techniques*, 9, 2877–2907, doi:10.5194/amt-2015-394. <https://doi.org/10.5194/amt-9-2877-2016>

2016: Painter, T.H., Berisford, D., Boardman, J.W., Bormann, K.J., Deems, J.S., Gehrke, F., Hedrick, A., Joyce, M., Laidlaw, R., Marks, D., Matmann, C., McGurk, B., Ramirez, P., Richardson, M., Skiles, S.M., **Seidel, F.C.**, and Winstral, A., 2016. The Airborne Snow Observatory: Fusion of scanning lidar, imaging spectrometer, and physically-based modeling for mapping snow water equivalent and snow albedo. *Remote Sensing of Environment*, vol. 184, 139–152, doi:10.1016/j.rse.2016.06.018.



<https://doi.org/10.1016/j.rse.2016.06.018>

**2015:** Thompson, D.R., **Seidel, F.C.**, Gao, B.C., Gierach, M.M., Green, R.O., Kudela, R.M., and Mouroulis, P., 2015. Optimizing irradiance estimates for coastal and inland water imaging spectroscopy. *Geophysical Research Letters*, 42, 4116–4123, 2015GL063287, doi:10.1002/2015GL063287. <https://doi.org/10.1002/2015GL063287>

**2015:** Schaepman, M., Jehle, M., Hueni, A., D'Odorico, P., Damm, A., Weyermann, J., Schneider, F., Laurent, V., Popp, C., **Seidel, F.C.**, Lenhard, K., Gege, P., Kuchler, C., Brazile, J., Kohler, P., De Vos, L., Meuleman, K., Meynart, R., Kneubühler, M., Schläpfer, D., Itten, K., Advanced radiometry measurements and earth science applications with the airborne prism experiment (APEX). *Remote Sensing of Environment*, vol. 158(3), 207–219, doi:10.1016/j.rse.2014.11.014. <https://doi.org/10.1016/j.rse.2014.11.014>

**2013:** Painter, T.H., **Seidel, F.C.**, Bryant, A.C., Skiles, S.M., Rittger, K., Imaging spectroscopy of albedo and radiative forcing by light absorbing impurities in mountain snow. *Journal of Geophysical Research: Atmospheres*, 118(17):9511–9523, doi:10.1002/jgrd.50520. <https://doi.org/10.1002/jgrd.50520>

**2013:** Thompson, D.R., de la Torre Juárez, M., Barker, C.M., Holeman, J., Lundeen, S., Mulligan, S., Painter, T.H., Podest, E., **Seidel, F.C.**, and Ustinov, E., Airborne imaging spectroscopy to monitor urban mosquito microhabitats, *Remote Sensing of Environment*, 137, 226–233, doi:10.1016/j.rse.2013.06.015. <https://doi.org/10.1016/j.rse.2013.06.015>

**2012:** **Seidel, F.C.**, Popp, C., Critical surface albedo and its implications to aerosol remote sensing, *Atmospheric Measurement Techniques*, 5, 1653–1665, doi:10.5194/amt-5-1653-2012. <https://doi.org/10.5194/amt-5-1653-2012>

**2012:** **Seidel, F.C.**, Kokhanovsky, A.A., Schaepman, M.E., Fast retrieval of aerosol optical depth and its sensitivity to surface albedo using remote sensing data. *Atmospheric Research*, 116, 22–32, doi:10.1016/j.atmosres.2011.03.006. <https://doi.org/10.1016/j.atmosres.2011.03.006>

**2010:** **Seidel, F.C.**, Kokhanovsky, A.A., Schaepman, M.E., Fast and simple model for atmospheric radiative transfer. *Atmospheric Measurement Techniques*, 3 (4), 1129–1141, doi:10.3390/s8031901. <https://doi.org/10.3390/s8031901>

**2008:** Itten, K.I., Dell'Endice, F., Hueni, A., Kneubühler, M., Schläpfer, D., Odermatt, D., **Seidel, F.**, Huber, S., Schopfer, J., Kellenberger, T., Bühler, Y., D'Odorico, P., Nieke, J., Alberti, E., Meuleman, K., APEX – the Hyperspectral ESA Airborne Prism Experiment, *Sensors* 8 (10), 6235–6259, doi:10.3390/s8106235. <https://doi.org/10.3390/s8106235>

**2008:** **Seidel, F.**, Schläpfer, D., Nieke, J., Itten, K.I., Sensor performance requirements for the retrieval of atmospheric aerosols by airborne optical remote sensing, *Sensors* 8 (3), 1901–1914, doi:10.3390/s8031901. <https://doi.org/10.3390/s8031901>

#### Papers In Peer-Review.....

**2021:** Witek, M. L., Garay, M. J., Diner, D. J., Bull, M. A., **Seidel, F.C.**, Nastan, A. M., and Hansen, E. G., 2021. Introducing the MISR Level 2 Near Real-Time Aerosol Product, *Atmospheric Measurement Techniques Discussions*. (preprint), <https://doi.org/10.5194/amt-2021-71>, in review.

#### Books & Chapters.....

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