**7. PERSONAL QUALIFICATION SUMMARIES**

Michael Lawson

**Education and training:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Virginia Tech | Blacksburg, VA | Degree | B.S. | 2005 |
| Virginia Tech | Blacksburg, VA | Degree | M.S. | 2006 |
| Penn State | State College, PA | Degree | Ph.D. | 2010 |

**Employment history**

2017 – current Senior Scientist, National Renewable Energy Laboratory, Boulder, CO

2015 – 2017 Technical Advisor (M&O), U.S. DOE Wind and Water Power Office, Washington, D.C.

2012 – 2014 Scientist, National Renewable Energy Laboratory, Boulder, CO

2010 – 2012 Post-Doctoral Researcher, National Renewable Energy Laboratory, Boulder, CO

2007 Aerodynamics Engineer, BMW, Munich Germany

**Awards and honors**

1. 2015 Offshore Mechanics and Arctic Engineering Conference – Hydrodynamic modeling competition winners.

**Peer-reviewed publications related to the proposed project**

1. Thomas S.J., Ananthan S. Yellapantula J., Hu J., Lawson M., Sprague M.A. “A Comparison of Classical and Aggregation-based Algebraic Multigrid Preconditioners for High-Fidelity Simulation of Wind-Turbine Incompressible Flows”. 2019. SIAM Journal on Scientific Computing.
2. Fleming, P, Annoni, J., Churchfield, M., Martinez, T., Gruchalla, K., Lawson, M., 2017, “From wake steering to flow control”, Wind Energy Sciences, <https://doi.org/10.5194/wes-3-243-2018>.
3. Tom N., Lawson, M., Yu, Y., Wright, A., 2016. “Spectral Modeling of an Oscillating Surge Wave Energy Converter with Control Surfaces”. Applied Ocean Research, <https://doi.org/10.1016/j.apor.2016.01.006>.
4. Tom N., Lawson, M., Yu, Y., Wright, A., 2016. “Development of a Nearshore Oscillating Surge Wave Energy Converter with Variable Geometrys”. Renewable Energy, https://doi.org/10.1016/j.renene.2016.04. 016.
5. Lawson, M., Li, Y., and Sale, D., 2011. "Development and Verification of a Computational Fluid Dynamics Model of a Horizontal-Axis Tidal Current Turbine". Proceedings of the 30th International Conference on Ocean, Offshore, and Arctic Engineering, Paper No. OMAE2011-49863, <https://doi.org/10.1115/OMAE2011-49863>.
6. Bir, G., Lawson, M., and Li, Y., 2011. "Structural Design of a Horizontal-axis Tidal Current Turbine Composite Blade". Proceedings of the 30th International Conference on Ocean, Offshore, and Arctic Engineering, Paper No. OMAE2011-50063, <https://doi.org/10.1115/OMAE2011-50063>.
7. Lawson, M., Craven, B., Paterson, E., and Settles, G., 2012. “A Computational Study of Odorant Transport and Deposition in the Canine Nasal Cavity: Implications for Olfaction”. Chemical Senses, https://doi.org/10.1093/chemse/bjs039.

**Relevant Patents**

1. Wave Energy Conversion Incorporating Actuated Geometry, 2018, US Patent Number 10066595 B2