

# Farid Karimpour

Department of Civil and Environmental Engineering,  
Colorado State University, Fort Collins, CO, 80523, USA  
✉ farid@engr.colostate.edu  
<http://www.engr.colostate.edu/~farid>

## EDUCATION

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- Colorado State University**, Fort Collins, CO, USA Jan. 2011 - expected 2014  
**Doctor of Philosophy**, Civil & Environmental Engineering  
Environmental Fluid Dynamics  
Advisor: Prof. Subhas K. Venayagamoorthy  
Dissertation Title: *Turbulence Modeling of Stably Stratified Wall-Bounded Flows*
- Sharif University of Technology**, Tehran, Iran Sept. 2007 - Jan. 2010  
**Master of Science**, Civil & Environmental Engineering  
Hydraulics & Water Resources Group  
Advisor: Prof. Seyed Mahmood Borghei  
Thesis Title: *Experimental Study of Two-Phase Slug Flow in a Rectangular Channel with Adverse Slope*
- Iran University of Science & Technology**, Tehran, Iran Sept. 2003 - Sept. 2007  
**Bachelor of Science in Engineering**, Civil & Environmental Engineering

## RESEARCH INTERESTS

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- Wall-Bounded Turbulence
- Turbulence Modeling
- Stratified Turbulence and Turbulent Mixing
- Environmental Fluid Mechanics

## PEER-REVIEWED PUBLICATIONS

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1. **Karimpour, F.** and Venayagamoorthy, S. K., “A simple turbulence model for stably stratified wall-bounded flows”, *J. Geophys. Res.: Oceans*, 2014, DOI: 10.1002/2013JC009332.
2. **Karimpour, F.** and Venayagamoorthy, S. K., “Some insights for the prediction of near-wall turbulence”, *J. Fluid Mech.*, vol. 723, pp. 126-139, 2013.

## SELECTED CONFERENCE PRESENTATIONS

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1. **Karimpour, F.** and Venayagamoorthy, S. K., “Improved RANS modeling of stably stratified wall-bounded turbulent flows”, Ocean Sciences, February 2014, Honolulu, Hawaii, USA.
2. **Karimpour, F.** and Venayagamoorthy, S. K., “A hybrid RANS closure scheme for the near-wall turbulence”, 66th Annual Meeting of the Division of Fluid Dynamics, American Physical Society, November 2013, Pittsburgh, Pennsylvania, USA.
3. Venayagamoorthy, S. K. and **Karimpour, F.**, “Turbulent mixing in stratified wall-bounded turbulent flows”, 66th Annual Meeting of the Division of Fluid Dynamics, American Physical Society, November 2013, Pittsburgh, Pennsylvania, USA.
4. **Karimpour, F.** and Venayagamoorthy, S. K., “Turbulence modeling of wall-bounded flows”, CSU Environmental Fluid Dynamics Seminar Series, October 2013, Fort Collins, Colorado, USA.
5. **Karimpour, F.** and Venayagamoorthy, S. K., “A zero-equation closure model for wall-bounded stably stratified flows”, 65th Annual Meeting of the Division of Fluid Dynamics, American Physical Society, November 2012, San Diego, California, USA.

6. **Karimpour, F.** and Venayagamoorthy, S. K., “Improved RANS turbulence models for stably stratified environmental flows”, Proceedings of the third International Symposium on Shallow Flows, June 2012, Iowa City, Iowa, USA.
7. **Karimpour, F.** and Venayagamoorthy, S. K., “Evaluation and improvement of RANS models for stably stratified turbulence”, 64th Annual Meeting of the Division of Fluid Dynamics, American Physical Society, November 2011, Baltimore, Maryland, USA.

## RESEARCH EXPERIENCE

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### Graduate Research Assistant

Jan. 2011 - Present

Civil & Environmental Engineering Department  
Colorado State University, Fort Collins, CO

- Conducted research to understand wall-bounded flows, especially in the near-wall region and in the presence of stratification.

### Graduate Research Assistant

Sept. 2007 - Jan. 2010

Civil & Environmental Engineering Department  
Sharif University of Technology, Tehran, Iran

- Conducted experimental research on two-phase (air-water) flow in closed conduits quantifying the pressure fluctuation as well as flow characteristics.

## SELECTED TEACHING EXPERIENCE

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### Fluid Mechanics

Guest Lecturer

Fall 2013 and Spring 2014  
Colorado State University

### Fluid Turbulence and Modeling

Guest Lecturer

Spring 2013  
Colorado State University

### Hydraulics

Teaching Assistant

Fall 2008 and Spring 2009  
Sharif University of Technology

### Statics

Teaching Assistant

Spring 2007  
Iran University of Science and Technology

## SELECTED AWARDS AND HONORS

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Student Travel Award, ISSF, Iowa City, Iowa

Summer 2012

Borland Scholarship

Spring 2012

Student Travel Grant, APS-DFD meeting, Baltimore, MD

Fall 2011

Jack Cermack Wind Engineering Scholarship

Fall 2011

Borland Scholarship

Spring 2011

## PROFESSIONAL MEMBERSHIP

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- American Physical Society (APS)
- American Society of Civil Engineers (ASCE)
- American Geophysical Union (AGU)

## COMPUTER SKILLS

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- **Programming Languages:** MATLAB, FORTRAN
- **Text Softwares:** L<sup>A</sup>T<sub>E</sub>X, Microsoft Office Suite
- **Operating Systems:** Linux, Microsoft Windows