

**THE APPLICATION OF CFD TO BUILDING ANALYSIS AND DESIGN:
A COMBINED APPROACH OF AN IMMERSIVE CASE STUDY AND
WIND TUNNEL TESTING**

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Mon, Sep 23, 2013 at 7:18 AM

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For this research, may I have your permission to include the four figures (1,2,3 and 5) from the publication "Comparison of Field and Full-Scale Laboratory Peak Pressures at the IBHS Research Center" ?

I would greatly appreciate your consent to this request.

Best Regards,

Daeung Kim

—

Daeung "Danny" Kim

Ph.D. Candidate
Architecture & Design Research

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Virginia Polytechnic Institute and State University
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Zhuzhao Liu <zliu@ibhs.org>
To: Daeung Kim <daeung44@vt.edu>

Fri, Sep 20, 2013 at 2:09 PM

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Zhuzhao

Sent from my Windows Phone

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Sent: 9/20/2013 13:25
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Daeung Kim

—

Daeung "Danny" Kim

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Architecture & Design Research
College of Architecture and Urban Studies
Virginia Polytechnic Institute and State University
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Daeung Kim <daeung44@gmail.com>

Data from Testing (IBHS-12XX01)

Morrison, Murray <mmorrison@ibhs.org>

Thu, Oct 4, 2012 at 1:25 PM

To: Danny <daeung44@gmail.com>, Chuck Johnson <chuckjohnson@acrylife.com>

Cc: "Cope, Anne" <acope@ibhs.org>, "Reinhold, Tim" <treinhold@ibhs.org>

Danny and Chuck,

The surface pressure from the building used in the Acrylife testing on March 23 and 24, 2012 is available from link to a dropbox folder below (File size approximately 1.4 GB). The data provided is from March 23 where no membrane was installed on the roof, for both the no parapet and parapet cases. The data is stored as a matlab binary data file and should contain all the information required to understand the respective data sets. IBHS will be happy to provide any further information or clarification required to understand, access or use the data provided in a timely manner. However, any further request for information or data processing will involve an additional costs that must be shared with Acrylife and will be subject to IBHS's internal project scheduling. IBHS hereby permits the use of information in report IBHS-12XX01 provided to Acrylife on August 31, 2012 and the use of the data provided through the dropbox folder referenced below by Danny Daeung in his PhD Dissertation (or Thesis). Any further publication or dissemination of the results would require review from IBHS, as outlined in the memorandum of understanding between Acrylife, Inc. and IBHS.

IBHS believes that the publicly available NIST aerodynamic database available from <http://fris2.nist.gov/winddata/uwo-data/uwo-data.html> is the best data set available for calibrating and validating a CFD simulation. This database provides sufficient information to predict reattachment points, which are critical for the placement of the roof vent, for a larger range of buildings and wind angles than were tested at IBHS.

<http://dl.dropbox.com/u/48596789/IBHS12XX01.mat>

Please confirm receipt of the data, by October 10, 2012, as data will be deleted from this online folder on October 11, 2012.

Best Regards,

Murray J. Morrison, PhD
Research Engineer
Insurance Institute for Business & Home Safety
5335 Richburg Road, Richburg, SC 29729
P: (803) 789-4218 F: [803-789-4210](tel:803-789-4210)

mmorrison@ibhs.org





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Grant, Elizabeth <elgrant2@vt.edu>
To: Daeung Kim <daeung44@vt.edu>

Mon, Dec 9, 2013 at 4:16 PM

Dear Daeung,

You have my permission to use the image in your dissertation with a citation referencing my master's thesis.

Sincerely,

Elizabeth

Elizabeth Grant, Ph.D., R.A.

Assistant Professor, School of Architecture + Design, Virginia Tech

Associate Director, Center for High Performance Environments

400F Cowgill Hall (0205), Blacksburg, VA 24061

[\(540\) 231-0609](tel:5402310609)

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Sent: Sunday, December 08, 2013 11:17 PM

To: Grant, Elizabeth

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Implementation of a Pressure-Equalizing Vent System for Low-Slope Roofs?

I would greatly appreciate your consent to this request.

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