# Monem Ayaz

#### PERSONAL DATA

PLACE AND DATE OF BIRTH: Norway | 4 December 1986

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## **EDUCATION**

OCT 2015-DEC 2019 PhD Candidate, University of Strasbourg / University of Oslo

Thesis: "Experimental and numerical investigation of cluster morphologies

and dynamics during biphasic flow in porous media"
Advisors: Renaud Toussaint and Knut Jørgen Måløy

Studied two-phase flow in porous media experimentally and numerically. Focused on burst-dynamics and the network form-

ation during secondary migration.

Aug 2012-Sep 2014 Master of Science in Physics, University of Oslo

Thesis: "Two phase granular transport in cylindrical confinement"

The degree consisted of courses in statistical mechanics, quantummechanics, continuum mechanics and a specially designed course

in fractals and percolation processes.

Advisor: Knut Jørgen Måløy

Aug 2008-Jun 2012 Bachelor of Science in Physics, University of Oslo

Coursework specialization with focus on computational physics,

mathematical modelling and condense matter physics.

#### **PUBLICATIONS**

- G.Dumazer, B.Sandnes, M.Ayaz, K.J Måløy, E.G Flekkøy: Frictional fluid dynamics and plug formation in multiphase millifluidic flow. Phys. Rev. Lett. June 2016.
- G.Dumazer, B.Sandnes, M.Ayaz, K.J Måløy, E.G Flekkøy: Self structuring of granular material under capillary bulldozing, Powder and Grains 2017.

# PARTICIPATION TO INTERNATIONAL MEETINGS WITH ABSTRACT

- M.Ayaz, G.Dumazer, B.Sandnes, K.J Måløy, E.G.Flekkøy, *Two phase granular transport in cylindrical confinement*, ITN flowtrans conferance, Strasbourg, France, November 2015.
- M.Ayaz, G.Dumazer, B.Sandnes, K.J Måløy, E.G.Flekkøy, Two phase granular transport in cylindrical confinement, EGU, Vienna, April 2016.
- M.Ayaz, R.Toussaint, K.J Måløy, G.Schäfer, *Experimental investigation of the displacement dynamics during biphasic flow in porous media*, EGU, Vienna, April 2016.
- M.Ayaz, R.Toussaint, K.J Måløy, G.Schäfer, *Experimental investigation of the displacement dynamics during biphasic flow in porous media*, CMG, Paris, June 2016.

- M.Ayaz, G.Dumazer, B.Sandnes, K.J Måløy, E.G Flekkøy, *Frictional fluid dynamics and plug formation in multiphase millifluidic flow*, International Workshop on Jamming and Granular matter, London, England, July 2016.
- M.Ayaz, R.Toussaint, K.J Måløy, G.Schäfer, *Interface fluctuations during rapid drainage*, EGU, Vienna, April 2017.

# **WORK EXPERIENCE**

Sep 2014-Jun 2015	Teacher at FYRSTIKKALLEEN VGS Taught mathematics and physics at high school level.
Mar 2015-Jun 2015	Teaching assistant at OSLO AND AKERSHUS UNIVERSITY COLLEGE Assisted in teaching the introductory physics course ELPE1100
AUG 2009-FEB 2010	Security guard for SECURITAS Worked full time at coca-cola Lørenskog
FALL 2009	Mathematics Teacher at SANDAKER VGS Taught mathematics at high school level.
DEC 2008-JUL 2009	Consultant at THE UNIVERSITY OF OSLO  Held talks at high schools promoting academic education in science
2006-2007	Cashier KIWI HELSFYR Worked as a chasier at a grocery store
sep 2005- Jun 2006	Soldier in the NORWEGIAN ARMY Served the army during my compulsary military training

### LANGUAGES

ENGLISH: Fluent

NORWEGIAN: Mothertongue

URDU: Fluent

FRENCH: Basic Knowledge

PYHTON: Experienced MATLAB: Experienced c++: Intermediate

### **INTERESTS AND ACTIVITIES**

Applied Mathematics and Physics, Imageprocessing, Research, Data analysis Gym, Music, Soccer, photography