David Clyde

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Education

2011-present **Ph.D. in Mathematics (expected 6/2017)**, *University of California Los Angeles*, 3.98.
Passed qualifying exams in Analysis (Spring 2012) and Algebra (Fall 2012)

2007-2011 **B.S. in Honors Mathematics**, *University of Michigan*, 3.85.

Research Experience

2014-present **Under Prof. Joseph Teran at UCLA**, *Cloth simulation. C++, numerical PDEs, nonconvex optimization, sparse linear algebra, multithreading.*

2010 **Under Prof. Edward Burger at Williams College**, *SMALL REU; NSF funded summer project in number theory using Diophantine analysis.*

Employment

Jun 2016 - Jan 2017 **Research Intern**, *Walt Disney Animation Studios.*
Modelling and parameter optimization for cloth simulation.

Jun 2015 - Dec 2015 **Research Intern**, *Walt Disney Animation Studios.*
Subdivision surface based finite element method for cloth simulation.

2012-2017 **Teaching Assistant**, *UCLA Math Dept.*
Taught discussion sections of 30-35 students. Calculus, linear algebra, real analysis, C++.
2015: UCLA Mathematics Departmental Teaching Award

Computer Skills

Proficient C++, Mathematica, emacs, LaTeX, OpenMP, bash, MATLAB, Visual Studio

Competitions Qualified for Bloomberg CodeCon 2017 onsite finals (2nd place at UCLA)

In top 6% of active competitors on CodeForces (handle dcclyde, current rating 1979)

In top 0.25% of competitors on Project Euler (handle dcclyde, solved 233 problems)

Publications

Burger, Edward B., David C. Clyde, Cory H. Colbert, Gea Hyun Shin, and Zhaoning Wang. Canonical Diophantine representations of natural numbers with respect to quadratic "bases". *Journal of Number Theory* 133, no. 4 (2013): 1372-1388.

Burger, E., David C. Clyde, Cory H. Colbert, Gea Hyun Shin, and Zhaoning Wang. A generalization of a theorem of Lekkerkerker to Ostrowski's decomposition of natural numbers. *Acta Arithmetica* 153 (2012): 217-249.

I am first author on a paper under review for SIGGRAPH 2017. I can't say more yet.

Miscellaneous

Languages English - Native; French - 4th semester proficiency at University of Michigan

Hobbies Ultimate frisbee, bouldering, table tennis, crosswords