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For readers of appointment files

Re: Dr. Sascha Hilgenfeldt

Dear Readers:

This is a letter of recommendation for Dr. Sascha Hilgenfeldt, who is being considered for a nontenured faculty position. I have known him for about seven years. During this time he has been a researcher in my own subfield. He has visited extensively at Chicago (at my invitation) and has worked extensively with my close colleagues. He and I discuss research several time a year. I feel know him and some of his work reasonably well.

Sascha is an exciting young applied mathematician, physicist, and engineer trained in PDE and interested in a non-tenured job in the US. He has a tenured job in the Netherlands in Applied Physics, and a wife in the US.

I know his sonoluminescence work best. His coworkers in this area are Michael Brenner and Detlef Lohse, two of the rising stars in my area of science. It is remarkable to see that in their joint work Sascha has almost from the beginning served as an equal partner. He has provided scholarship and physics insight up to the very high level of his coauthors, and has taken the leadership in building models and computer programs. The end result is work that is important and incisive. That work is at a level to earn him consideration for tenure at most major institutions.

But Sascha did not stand still after his very high accomplishments in sonoluminescence. He moved successively into study of foams, vesicle dynamics, and medical applications of bubbles. All of this work was careful and at a very high level. Clearly, he is solid and versatile.

Dr. Hilgenfeldt is certainly working at the level of a tenured faculty person in the US. His writes his own proposals, gets his own European and Dutch grants, trains his own graduate students, directs his own postdoc, runs his own theoretical program, has built his own laboratory, and teaches his own courses. His publication list is as broad and deep as one might expect from a US beginning tenured faculty member at one of our best places. However, because he is not as well known here as someone who had his graduate training at one of our great universities, he is willing to start out with a non-tenured position. I believe that this is an exceptional opportunity for a university interested in building research at the points of intersection among fluid/solid mechanics, applied mathematics, and applied physics.

I hope this is helpful to you.

Sincerely yours,

Leo P Kadanoff

Professor of Physics and Mathematics,

Emeritus, University of Chicago

LPK/ms