STANFORD PAN-ASIAN MUSIC FESTIVAL
2008
APRIL 20 - MAY 4
JINDONG CAI, Artistic Director

China on Stage
中國大舞台
## PACIFIC RIM OF WIRE

STANFORD LAPTOP ORCHESTRA AND STANFORD NEW ENSEMBLE
IN A NETWORKED PERFORMANCE WITH BEIJING
GE WANG AND JINDONG CAI, DIRECTORS

DINKELSPIEL AUDITORIUM
TUESDAY, APRIL 29, 8 P.M.
(WEDNESDAY, APRIL 30, 11:00 A.M., BEIJING TIME)

### PROGRAM

| JINGJING LOU: One Who Moves Without Direction | Jingjing Lou |
| Dpressed piece written for solo flute (double piccolo), 2 violin, 1 violoncello, 2 percussion, laptop orchestra, lighting, acting, conductors, and Chinese calligrapher. |

| DAN TRUEMAN: Drone |
| This is part of a series of works and experiments with onboard sensors (found on newer Apple and other laptops, intended to protect the hard drives in the event of sudden motion) to control sonic and musical parameters. The players have control over volume, pitch, and timbre via the onboard accelerometers and trackpad. |

| GE WANG: CIX |
| In this piece, human operators type to make sounds, while their machines synthesize, synchronize, and spatialize the audio. Every key on the computer keyboard (upper/lower-case letters, numbers, symbols) is mapped to a distinct pitch (using the key's ASCII representation) and when pressed, emits a clicking sound that is synchronized in time to a common pulse. A (human) conductor coordinates frequency range, texture, movement, and timing. |

| PERRY R. COOK: Take it for Granite |
| This sonic landscape was mined from recordings of stone sculptor Jonathan Shor's working of a large piece of granite. The composer recorded Shor's drilling, placing shims, tapping the shims, and the wonderful sound of millions of years of energy being released as the stones split. The laptop orchestra players manipulate these sounds via a ChucK program that allows them to change properties of the sounds. Eventually, a rhythmic pattern emerges (the striking) wherein the individual SLOrk players control both texture and synchronization. |

| GE WANG: TBA |
| On-the-fly programming, or live coding, is the practice of writing code in real-time to create music. This piece is our first attempt at large scale, group live coding (15 humans/laptops) to create a single sound world. Players, divided into squadrons, follow instructions from a conducting live coder, who issues directives both in the form of code fragments (in the ChucK language) and sentence fragments (in the English language). In keeping with the crucial live coding tenet of revealing the process to the audience, the conducting machine will be projected 1) for all to observe, and 2) as a means of instructing the ensemble. |

| In C |
| Terry Riley |

| Improvisation Telematica |
| Chris Chafe, Hongmei Yu, Bruce Gremo |

| Tuning Meditations |
| Pauline Oliveros |

### INTERMISSION
the instrument; and it is played via the act of programming. Also, we never really
know what's going to happen next (expect glorious disasters). Until it's performed,
the piece remains "TBA" to all, including us...

**Ge Wang: Crystals**

Originally created for the Ear to the Earth Festival in NYC, this piece is a sonic
rumination of crystal caves in the clouds, where the only sounds are those of the
wind and the resonances of the crystals. It uses two simple instruments called
the crystals and wind-o-lin. These instruments make use of the laptop keyboard
(which controls pitch and resonance) and the trackpad (which the players "bow" in
various patterns to generate sound).

**Terry Riley: In C**

We present a special networked performance of Terry Riley's In C, for laptop orchestra,
er-hu, wind controller, and cello. In C can be played by any number of people, and
consists of 53 short, numbered musical phrases; each phrase may be repeated an
arbitrary number of times. Each musician has control over which phrase he or she
plays: players are encouraged to play the phrases starting at different times, even if
they are playing the same phrase (and in our case, the laptop players have interactive
control over timbre and articulation of the phrase being played). The musical
ensemble should try to stay within two to three phrases of each other. The phrases
must be played in order, although some may be skipped. It is often customary for one
musician (in this case a computer) to play the note C in repeated eighth or quarter
notes. This drone functions as a metronome and is referred to as "The Pulse".

**Chris Chafe, Hongmei Yu, Bruce Gremo: Improvisation Telematica**

A tele-improvisation between Beijing and Stanford.

**Pauline Oliveros: Tuning Meditations**

(stay tuned for special instructions!)

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**ABOUT THE PRODUCTION**

**The Stanford Laptop Orchestra** (SLOrk) is a large-scale, computer-mediated
ensemble that explores cutting-edge technology in combination with conventional
musical contexts — while radically transforming both. Founded in 2008 by
director Ge Wang and students, faculty, and staff at Stanford University's Center
for Computer Research in Music and Acoustics (CCRMA), this unique ensemble
comprises more than 20 laptops, human performers, controllers, and custom multi-
channel speaker arrays designed to provide each computer meta-instrument with
its own identity and presence. The orchestra fuses a powerful sea of sound with the
immediacy of human music-making, capturing the irreplaceable energy of a live
ensemble performance as well as its sonic intimacy and grandeur. At the same time,
it leverages the computer's precision, possibilities for new sounds, and potential
for fantastical automation to provide a boundary-less sonic canvas on which to
experiment with, create, and perform music.

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Offstage, the ensemble serves as a one-of-a-kind environment and classroom that
explores music, computer science, composition, and live performance in a naturally
interdisciplinary way. — http://ccrma.stanford.edu/groups/slork/

**STANFORD LAPTOP ORCHESTRA (SLORK)**

**Ge Wang: Director**

| Adnan Marquez-Borbon | Jason Riggs | Max Citron |
| Baek San Chang       | Jeff Cooper | Michael Berger |
| Brett Ascarelli      | Jeff Smith  | Nick Bryan |
| Chris Warren         | Jieun Oh    | Patricia Martinez |
| Chrysse Nanou       | Juan Cristobal Cerrillo | Reed Anderson |
| David Bao            | Juhan Nam   | Rob Hamilton |
| Diana Siwiak         | Kayla Cornale | Steinunn Arnardottir |
| Ethan Hartman        | Kyle Spratt | Turner Kirk |
| Ge Wang              | Lawrence Fye | Vasiliy Sharikov-Bass |
| Gina Gu              | Luke Dahl   | |
| Hayden Bursk         | Marisol Jimenez Becerra | |

**Featuring Special Guests**

**Stanford**: Chris Chafe (cello), Jingjing Lou, Stanford New Ensemble, conducted by
Jindong Cai

**Beijing**: Hongmei Yu (erhu), Bruce Gremo (wind controllers)

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**Network Researchers and Engineers**

**Stanford**: Juan-Pablo Caceres, Rob Hamilton, Deepak Iyer, Ge Wang, and Chris
Chafe

**China**: Hao Ma, Ken Fields

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Collective [sic] for helping to nurture SLOrk. Many thanks to the Central
Conservatory of China and the Beijing University; to Xiaofu Zhang for his
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and Rebecca Fiebrink at Princeton.