



tre giorni di scienza,  
musica e apprendimento

13 - 15 gennaio 2009  
trieste

# la musica la musica in testa in testa



#### organizzatori

MIUR - Direzione generale per gli ordinamenti del sistema nazionale di istruzione e per l'autonomia scolastica

Gruppo di lavoro per lo sviluppo della cultura scientifica e tecnologica

Coordinamento nazionale per l'apprendimento pratico della musica

Ufficio scolastico regionale del Friuli Venezia Giulia

Scuola internazionale superiore di studi avanzati (SIISA)

Scienze centro immaginario scientifico

Conservatorio di musica "G. Tartini", Trieste

Istituto professionale di stato per l'industria e l'artigianato, Ronza

Informazioni e iscrizioni

Ufficio scolastico regionale del Friuli Venezia Giulia  
• Laura Tesburiel, tel. 040 4190293  
• Marco De Pa, tel. 040 4174336, marco.depa@istruzione.it

Il convegno è riconosciuto ai fini dell'aggiornamento dei docenti.

#### collaboratori

Centro Internazionale di fisica teorica "Abdus Salam" (ICTP)

Istituto professionale di stato per i servizi alberghieri e della ristorazione, Monfalcone (IG)

patrocini e sostegno

Regione Autonoma Friuli Venezia Giulia

Provincia di Trieste

Comune di Trieste

scuole del convegno

• SIISA, Aula Magna, via Deserti 2, Trieste

• ICTP, Adriatico Guesthouse, via di Grignano 7, Trieste

A cura di **Cristina Fedrigo**

**Laboratorio Conservatorio Tartini  
La Musica in Testa, TRIESTE 2009**

martedì 13 gennaio

La basi neurobiologiche dell'apprendimento  
SIISA, Aula Magna

14-20  
Tabelle delle autorità locali e del Direttore generale per gli ordinamenti del sistema nazionale di istruzione e per l'autonomia scolastica, Maria L. Lutto

14-15  
Jacques Mehler (SIISA, Trieste)

15-20  
Susan Carey (Harvard University, Usa)

16-16  
Coffee break

16-16  
DAVID Klahr (Carnegie Mellon, Usa)

17-20  
Pier Paolo Battaglini (Università degli studi di Trieste)

18-20  
Concerto degli studenti del Conservatorio di musica "G. Tartini", Trieste

mercoledì 14 gennaio

Problemi teorici: fisica e musica  
SIISA, Aula Magna

9-10  
Gianni Zanarini (Università degli studi di Bologna)

9-20  
Renato Rusto (Università degli studi "Federico II", Napoli)

10-10  
Pietro Pantano e Cleonora DiIatta (Università della Calabria, Cosenza)

10-20  
Coffee break

11-10  
Marco Maria Tomlini (Conservatorio di musica "G. Tartini", Trieste)

11-20  
Enzo Francescato (Conservatorio di musica "J. Tomadini", Udine) e Erica Blassi (Università degli studi di Udine)

12-20  
Luigi Berlinguer (Presidente Gruppo di lavoro per lo sviluppo della cultura scientifica e tecnologica)

13-20  
Buffet

Sperimentazioni pratiche: didattica tra musica e scienze  
ICTP, Adriatico Guesthouse

14-10-14-15 e 14-20-17-16 • Sessioni parallele di laboratori didattici

• Per la scienza: introduzione da parte del Gruppo di lavoro per lo sviluppo della cultura scientifica e tecnologica

Laboratori a cura di:  
Fondazione IIS-Città della scienza (Napoli)  
Scienze centro immaginario scientifico (Trieste)  
ESG- Gruppo sui sistemi evolutivi dell'Università della Calabria (Cosenza)

• Per la musica: introduzione da parte del Comitato nazionale per l'apprendimento pratico della musica

Laboratori a cura di:  
Conservatorio di musica "G. Tartini" (Trieste)  
Scuola di musica SS/Casa della musica/Comune di Trieste/Arca Cultura (Trieste)

Performance musicale: storia di un apprendimento  
ICTP, Sala Kastler, Adriatico Guesthouse

14-20  
Vincenzo e l'imprinting scientifico di Galileo Galilei

Andrea Busiani (Conservatorio di musica "Santa Cecilia", Roma)

Interpreta la opera di Vincenzo Galilei

Intervengono sul tema  
Gianni Zanarini (Università degli studi di Bologna)

Pietro Greco (IIS-SIISA, Trieste)

giovedì 15 gennaio

Musica e scienza a scuole  
SIISA, Aula Magna

9-10  
Ugo Parrella (Direttore generale dell'Ufficio scolastico regionale del Friuli Venezia Giulia)

10-10  
Silvano Tagliagambe (Università degli studi di Sassari)

10-20  
Sebastiano Dagnara (Politecnico di Milano)

11-10  
Coffee break

11-20  
Tavola rotonda

Validità scientifica per i docenti e per i discenti di un insegnamento integrato delle scienze

Interviene Luigi Berlinguer (Presidente Gruppo di lavoro per lo sviluppo della cultura scientifica e tecnologica)

# Laboratorio del Conservatorio di Musica “Giuseppe Tartini” di Trieste

Le esperienze proposte nel laboratorio rappresentano alcuni esempi (giocati e giocosi) frutto di ricerca professionale su quanto la musica è in grado di offrire quale contesto e mezzo di educazione e formazione.

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Si tratta solo di alcuni tra i possibili ma concreti esempi per sottolineare come la necessità della risorsa musicale possa rispondere oggi alle esigenze della complessità del vivere e del sapere, e possa strutturare strumenti preziosi di sviluppo e consapevolezza.

**Vivere l'educazione  
non può che significare pensare  
“musicalmente”...**

A cura di: Cristina Fedrigo  
Contributi di: Sara Radin,  
Maurizio Goina e Pietro Polotti,  
Claudia Sedmach

**...la Musica in testa ... la musica  
ovunque, comunque, per chiunque.  
Cinque essenziali esperienze con la  
musica come strumento di crescita**

**Lu  
cuntu  
nun  
metti  
tempu...**

**\***

**... ma  
la  
musica  
sì**

**\* “Il racconto  
non mette  
tempo”**

**(formula usata  
in Sicilia da chi  
narra fiabe)**

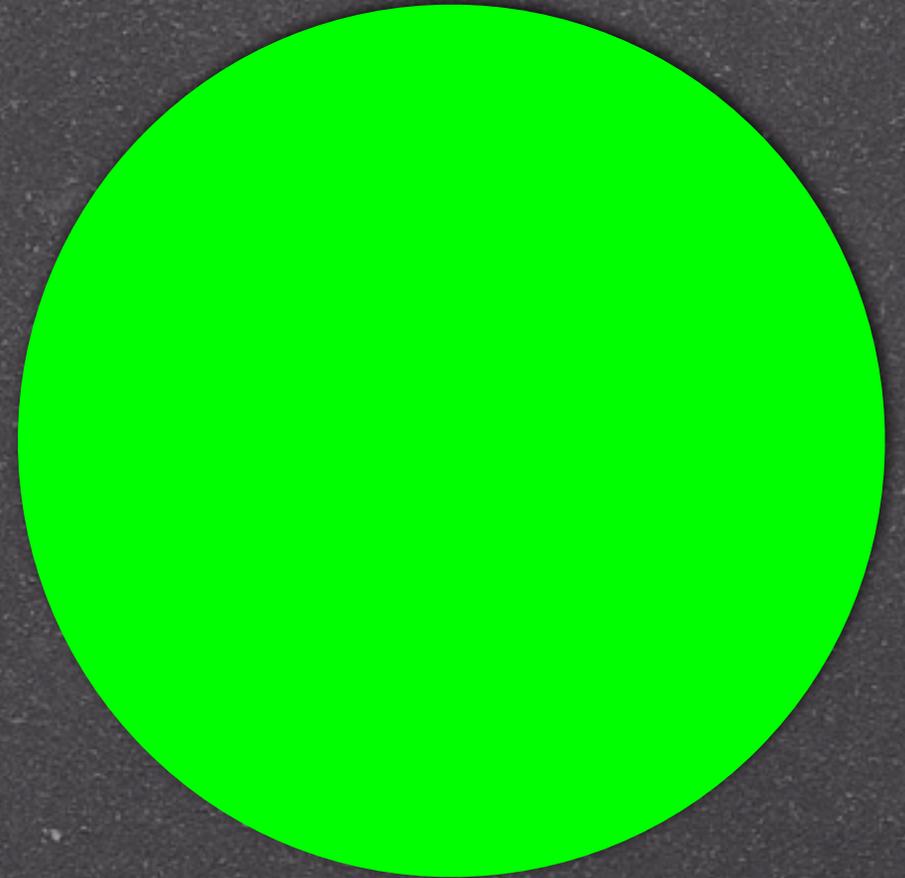


Se non ci fosse  
il tempo, forse  
non ci sarebbe  
musica



Se non ci fosse  
musica, forse  
non ci  
sarebbero certe  
complessità

Se non ci fossero  
certe complessità  
forse non ci  
sarebbero certi  
apprendimenti



Forse per la musica, per  
l'educazione e la  
formazione musicali non  
c'è una fine, ma  
neppure un inizio:

oppure dovremmo  
immaginare un tempo  
senza musica

Ma è semplice battere con le mani una pulsazione costante?

Che differenza fa battere le mani sulle gambe o dire a tempo "ah"?

Quando si legge suonando, come si riesce a leggere prima durante e dopo?

Ma non sarebbe più facile suonare leggendo una partitura dinamica?

Ma è davvero la scrittura musicale ad essere "difficile"?

Siamo sicuri che una performance musicale di base sia un "gioco da bambini"?

# La Musica in testa... la musica “per gli occhi”: alle basi dell’ascoltare

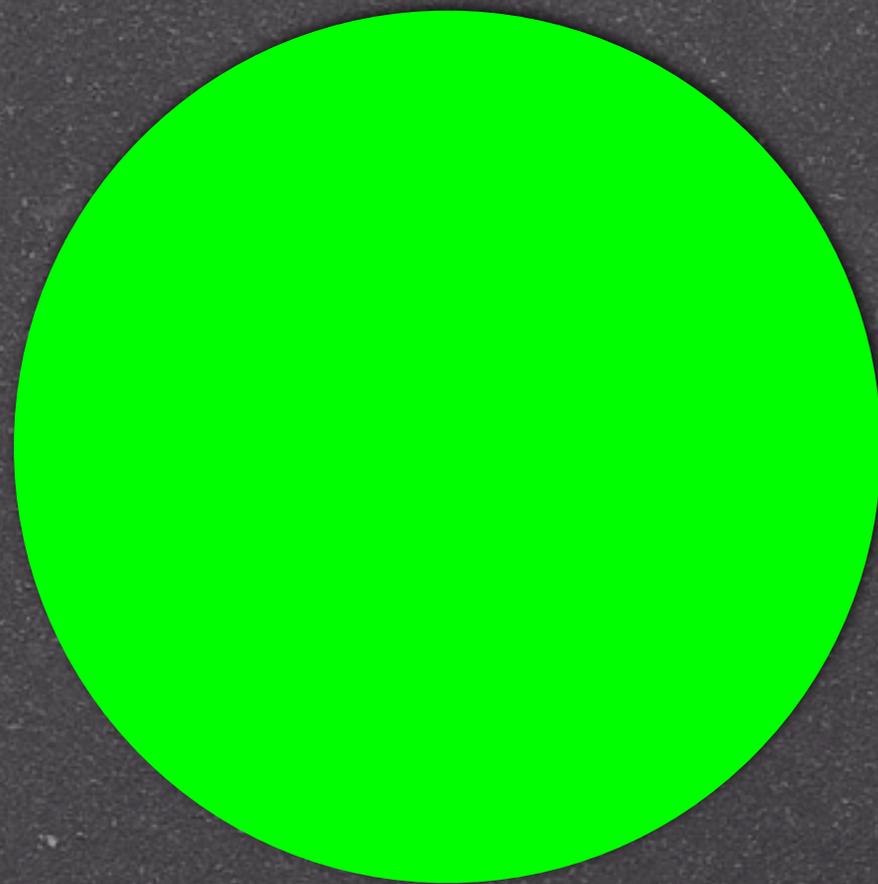
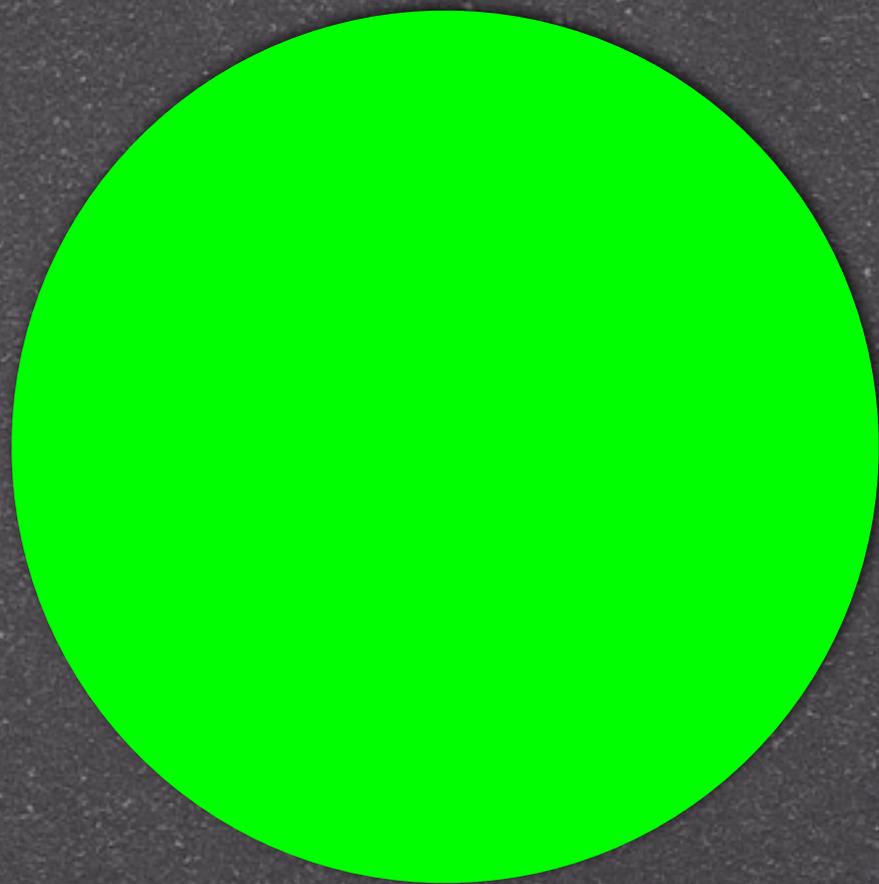
Contributi di Cristina Fedrigo

(in parte) da:

La Musica...che non si vede: trovare musica sostenibile  
nelle scuole dell’infanzia e primaria

Rovigo, 25/11/2006 “MusicAscuola: primi passi in musica”,  
Seminario Regionale di Formazione Aggiornamento  
sull’Istruzione Musicale

**Cercate  
la pulsazione costante  
“ascoltando”  
la sequenza che segue:  
potrete eseguirla al  
termine battendo le  
mani**



# Ora eseguite quanto segue (ma in differita)

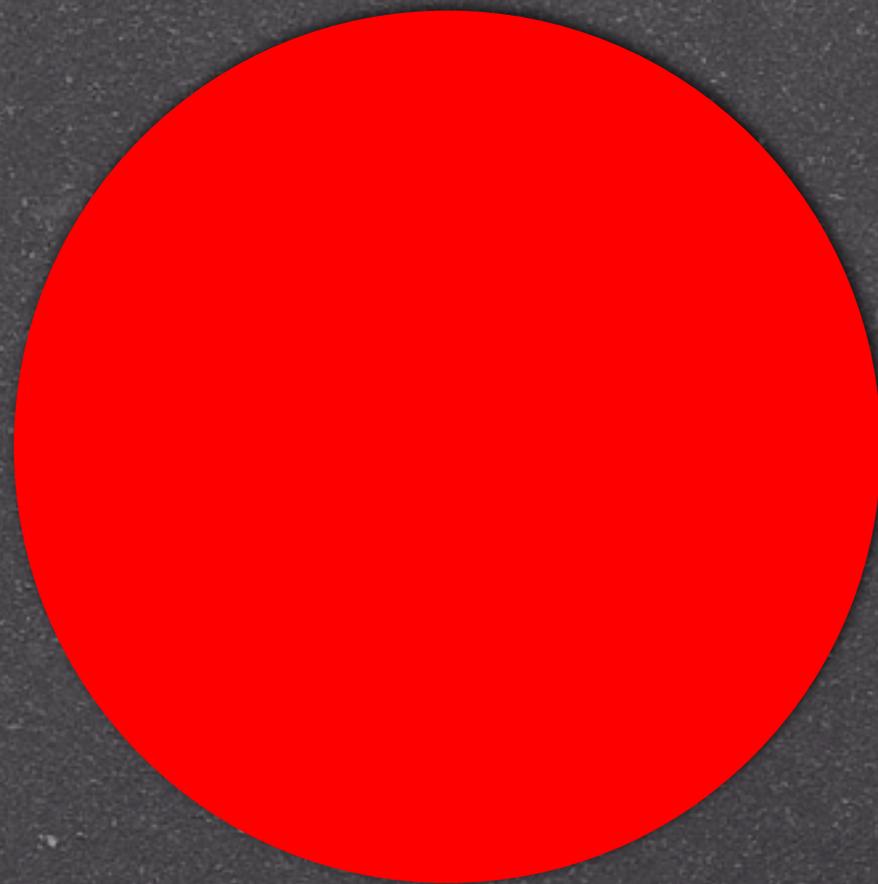
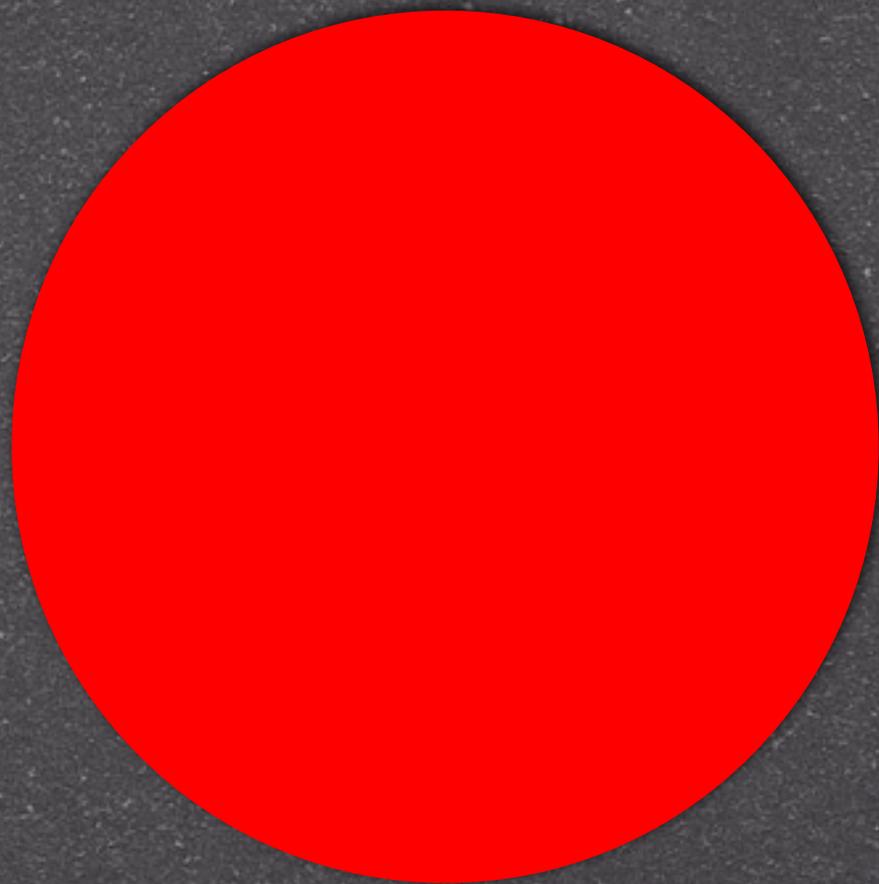
**Rosso = mani**

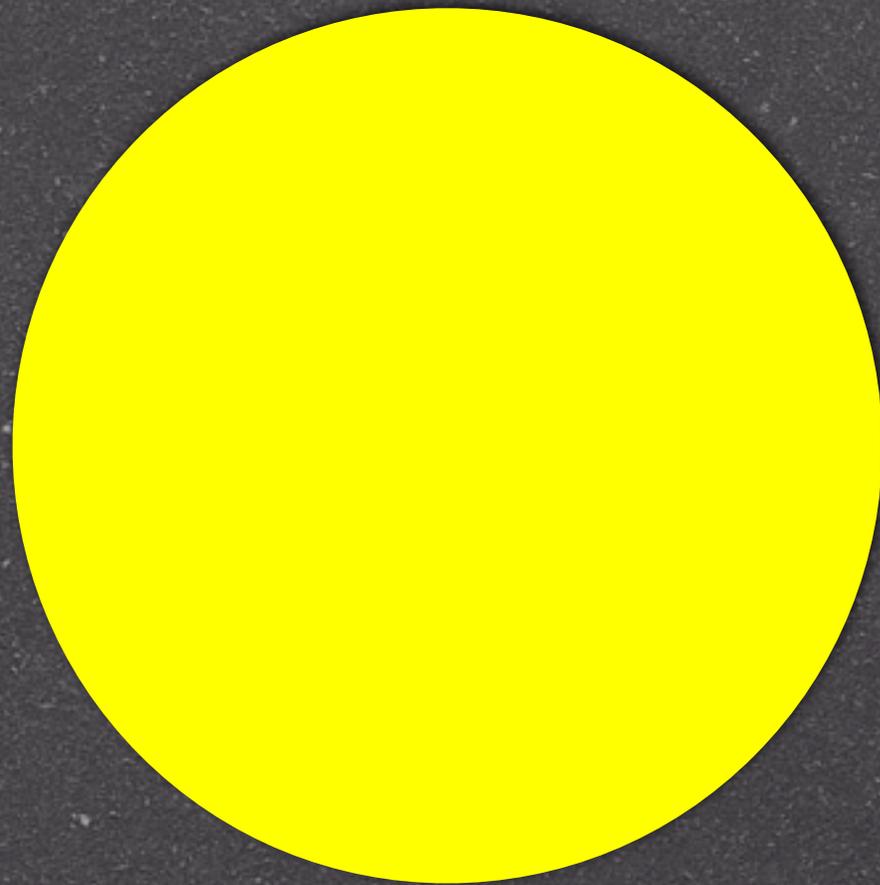
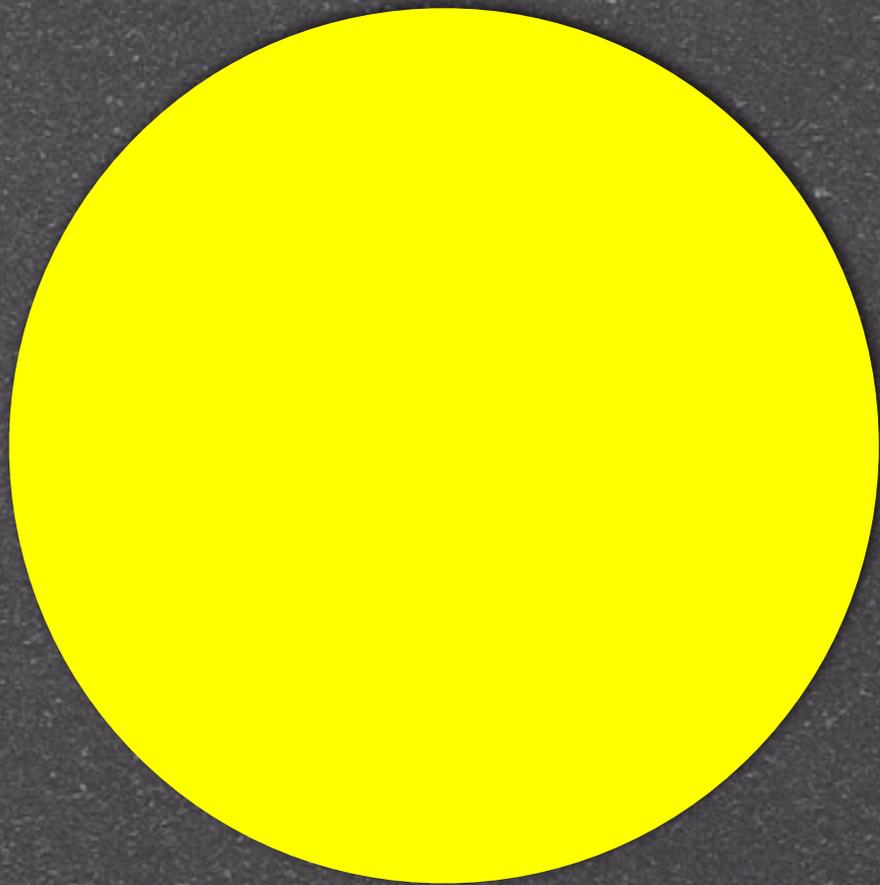
**Giallo = mani sulle gambe**

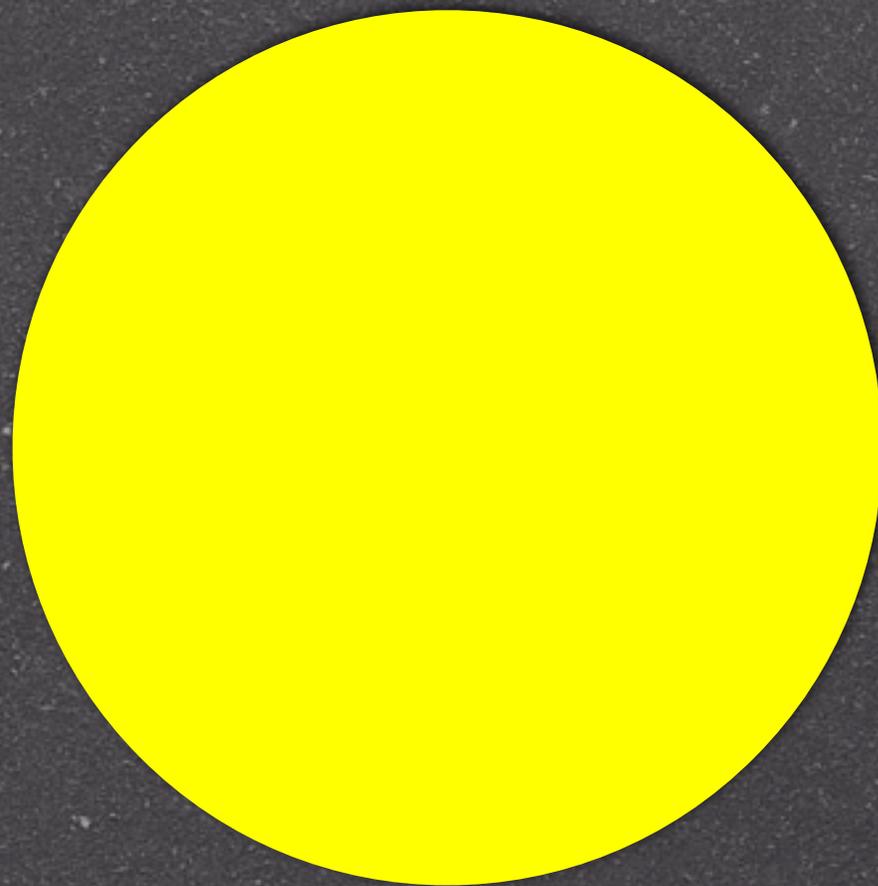
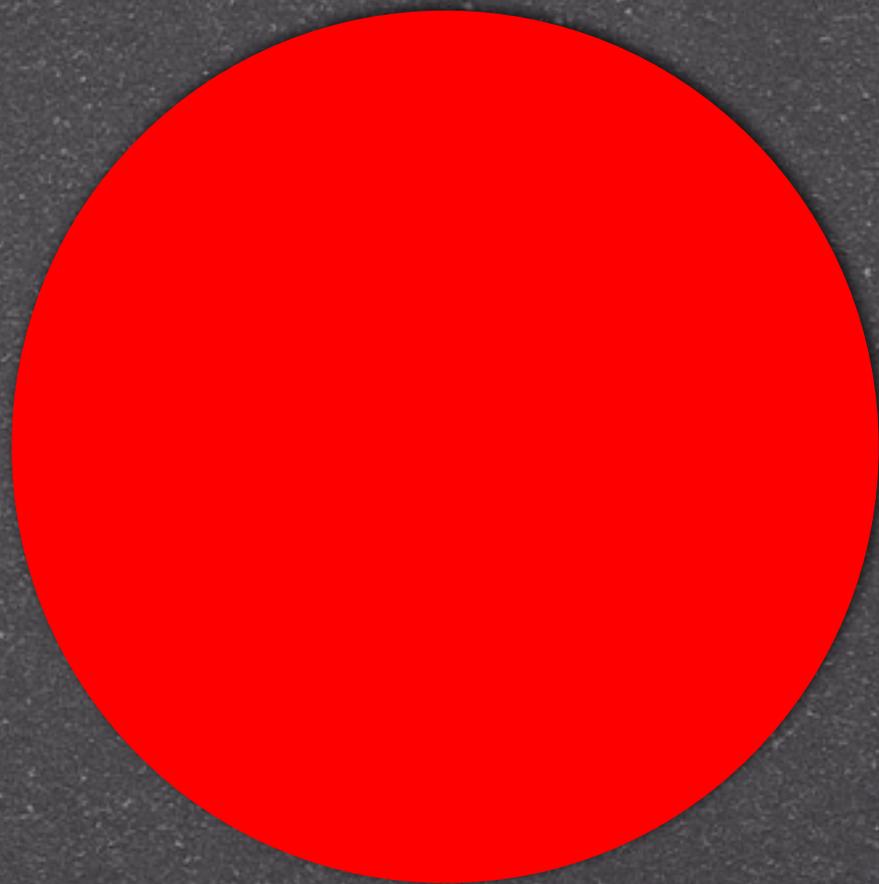
**Grande = forte**

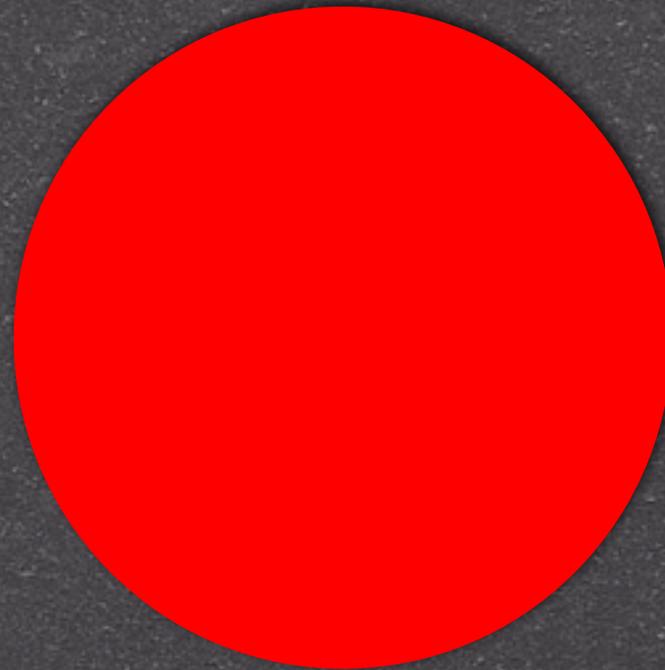
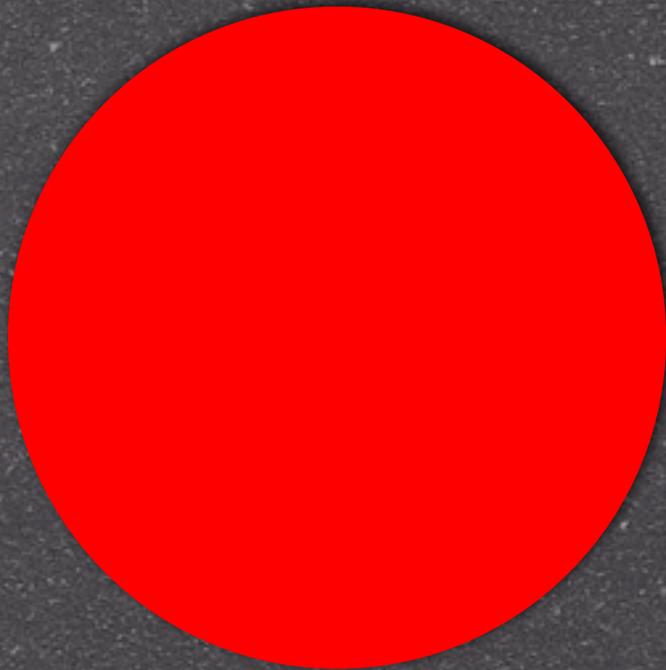
**Piccolo = piano**

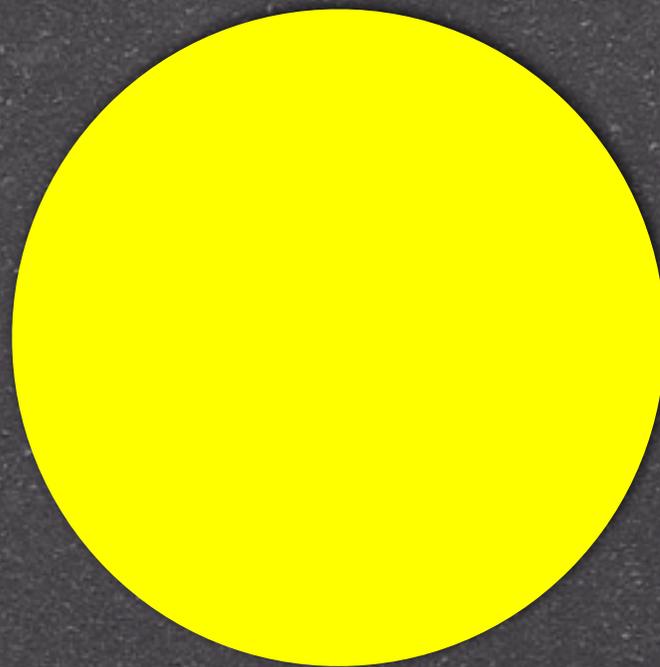
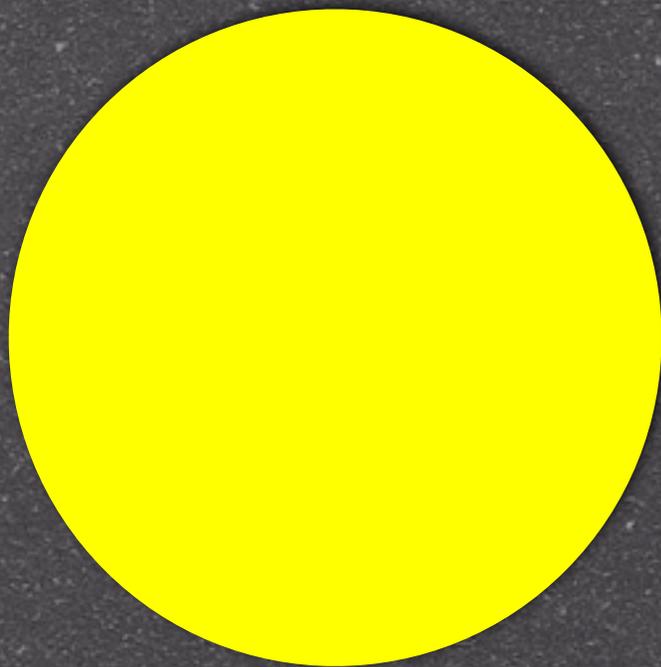
Con due, in movimento

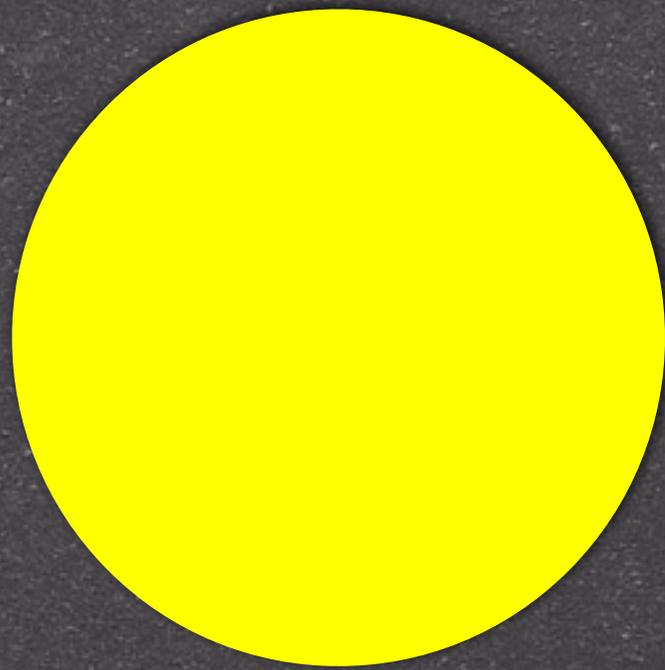
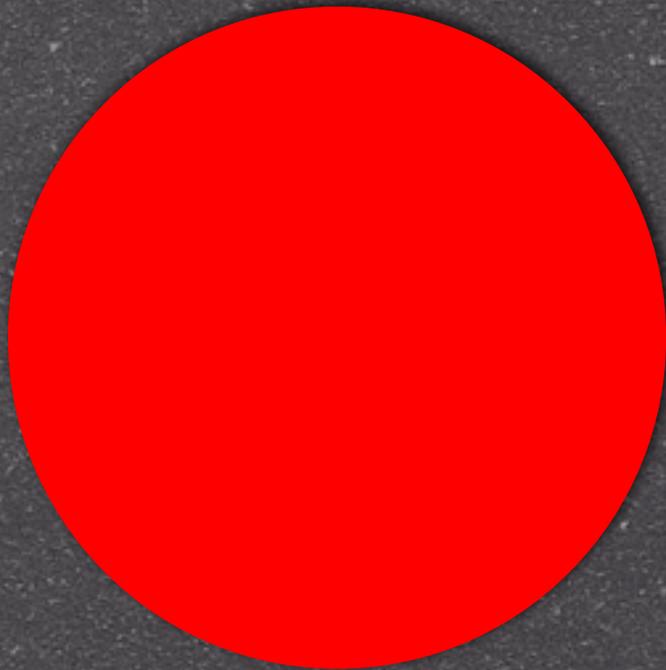


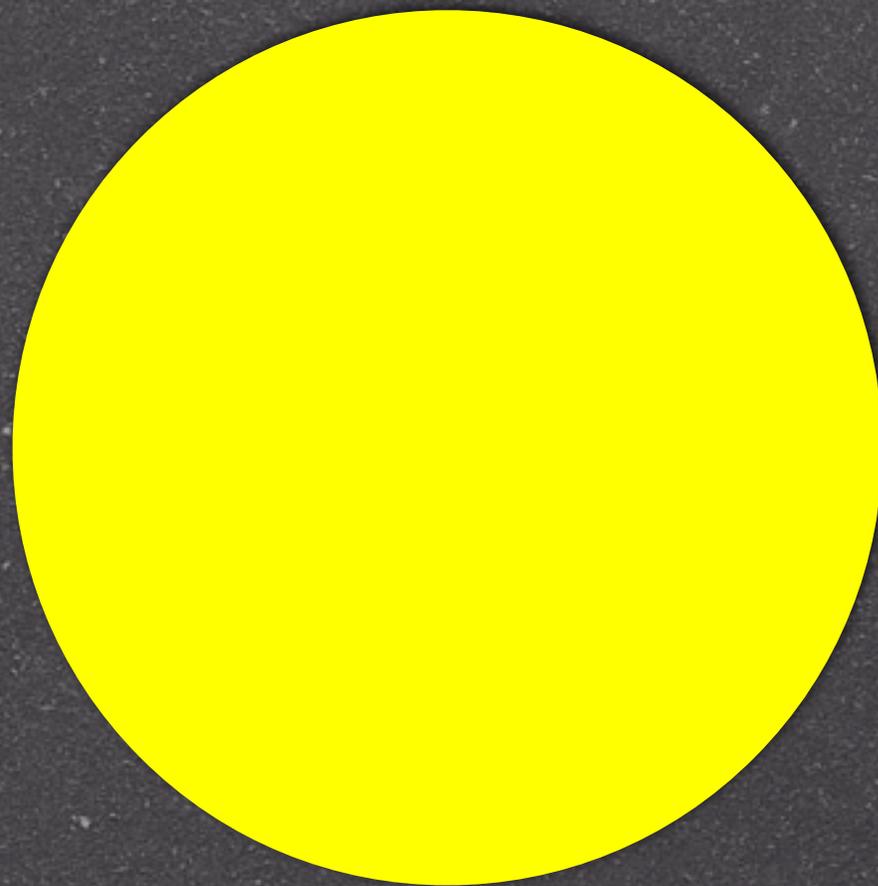
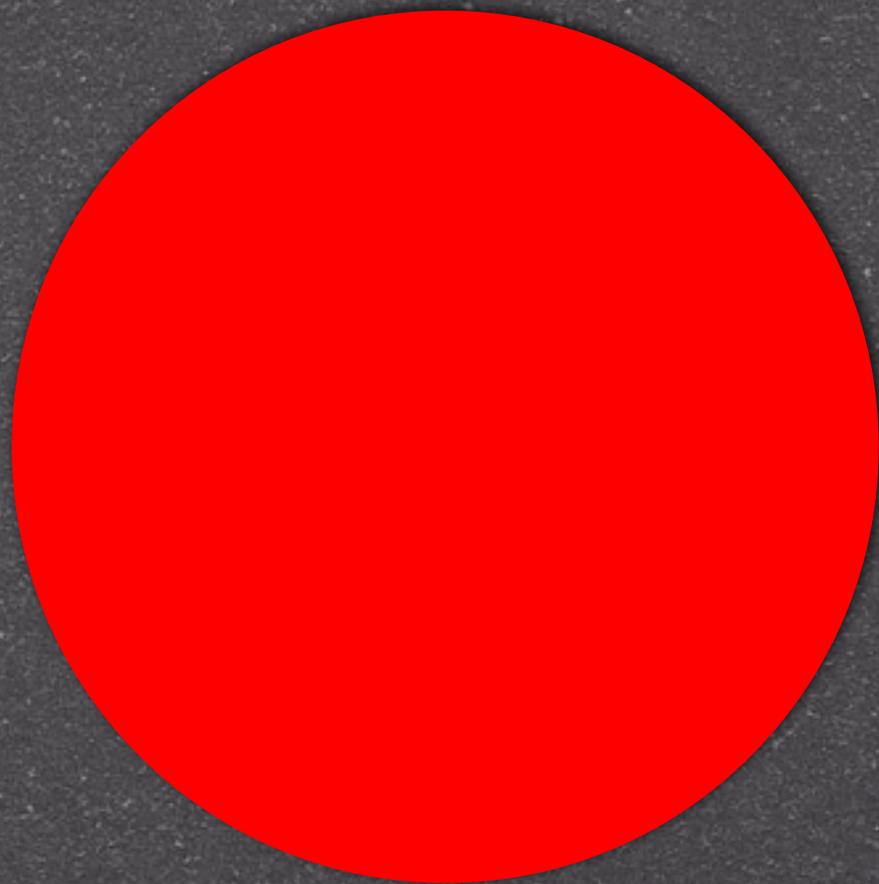


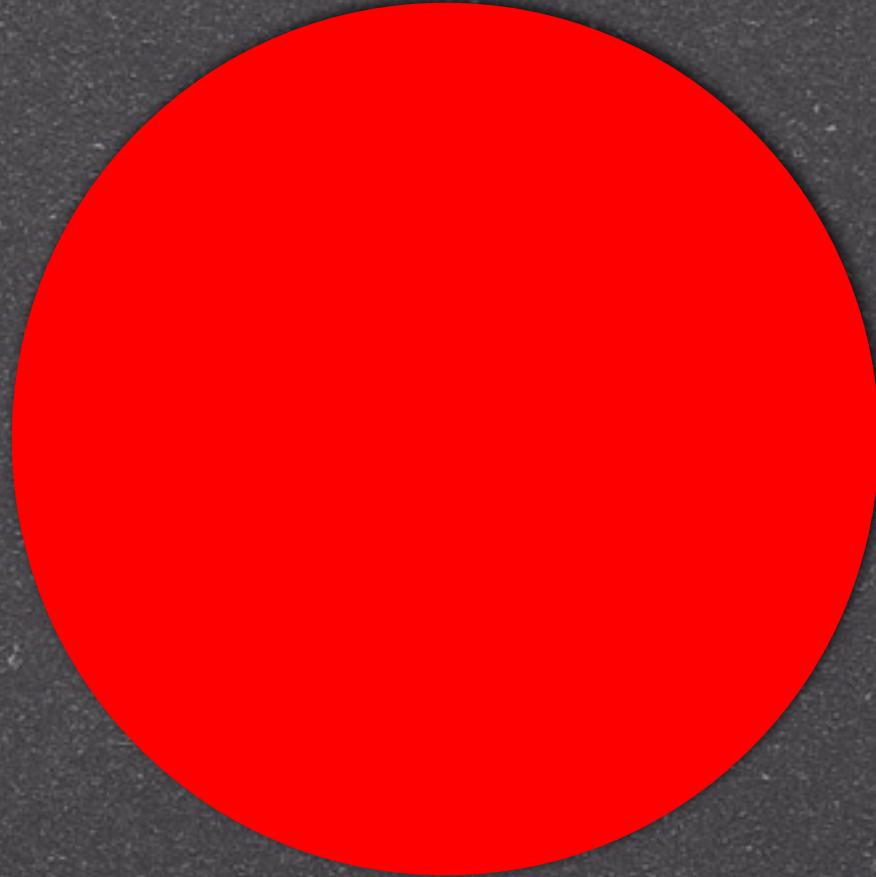












# Ora eseguite quanto segue

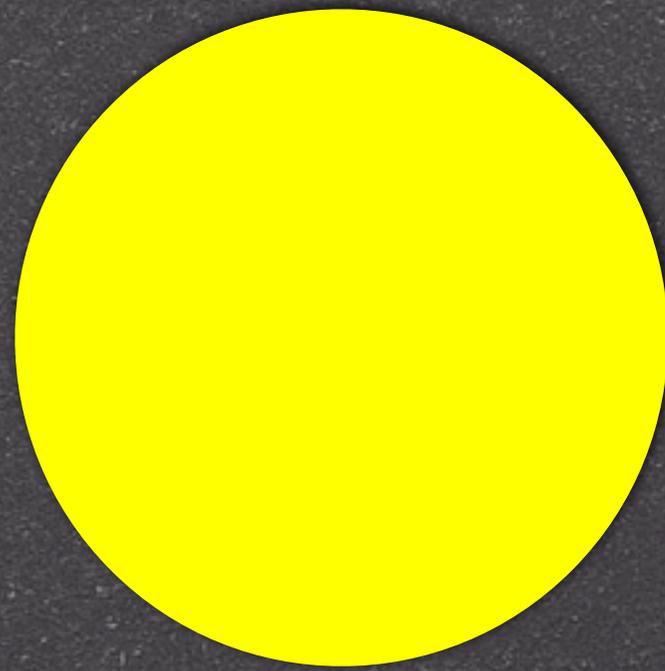
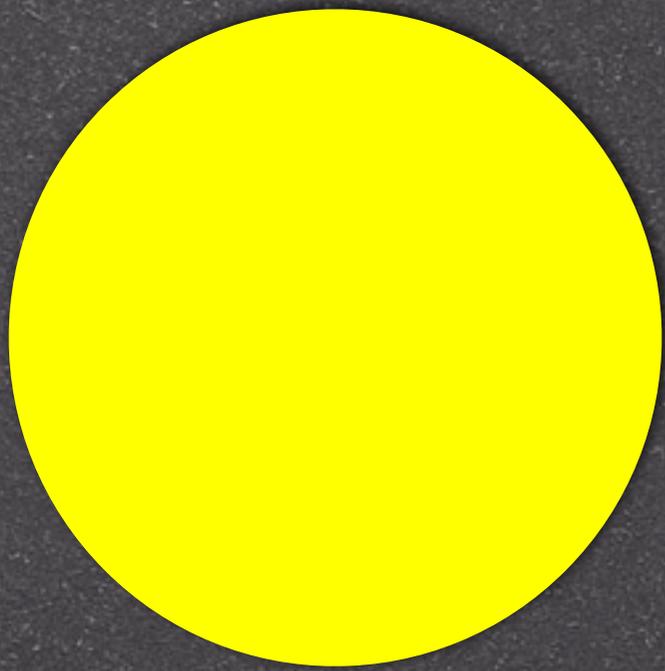
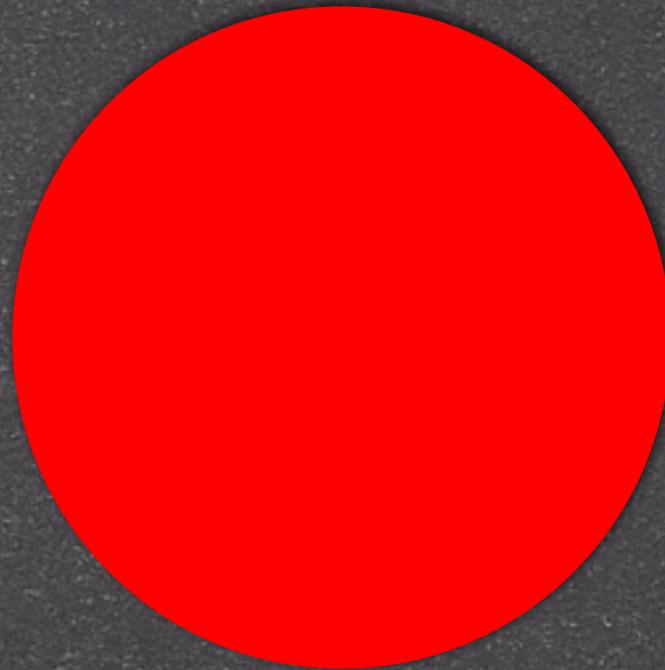
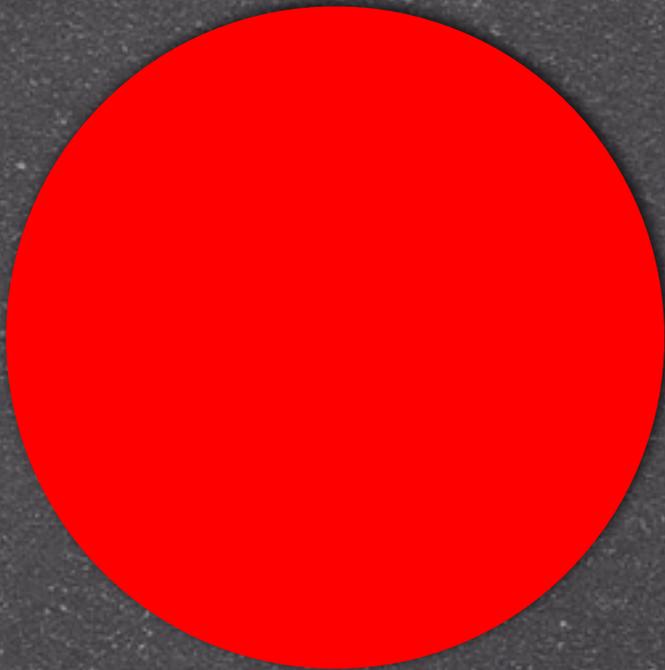
**Rosso = mani**

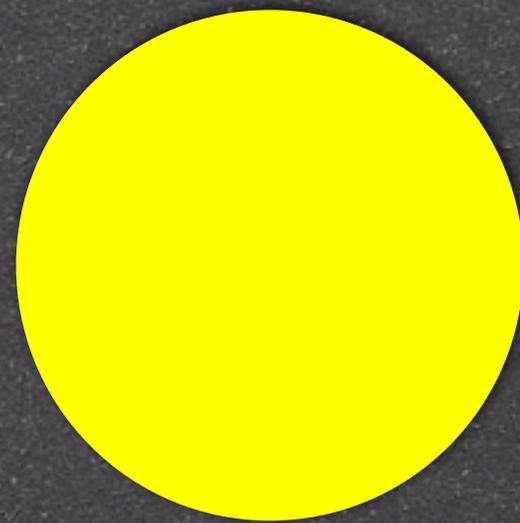
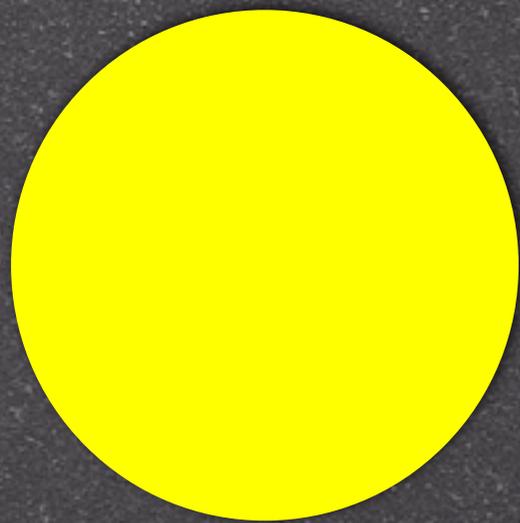
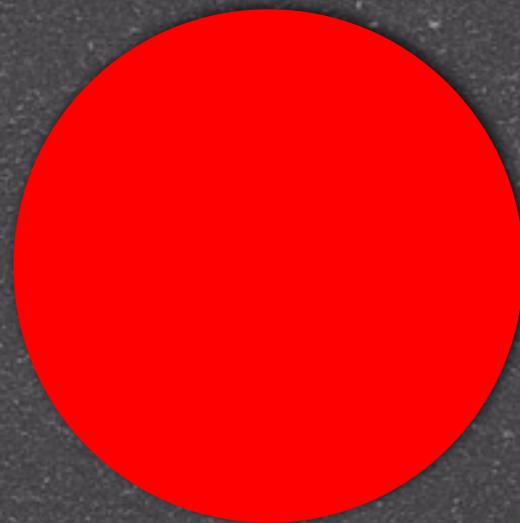
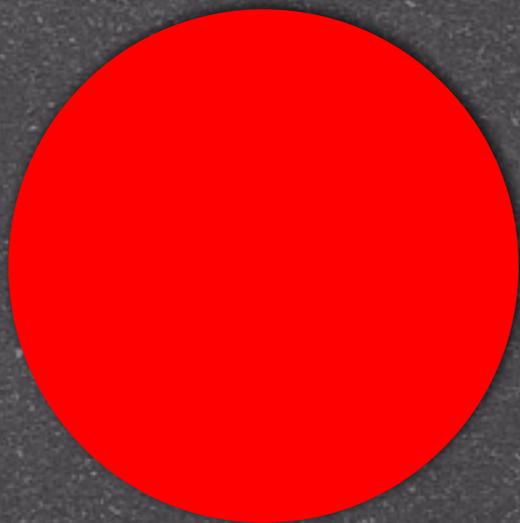
**Giallo = mani sulle gambe**

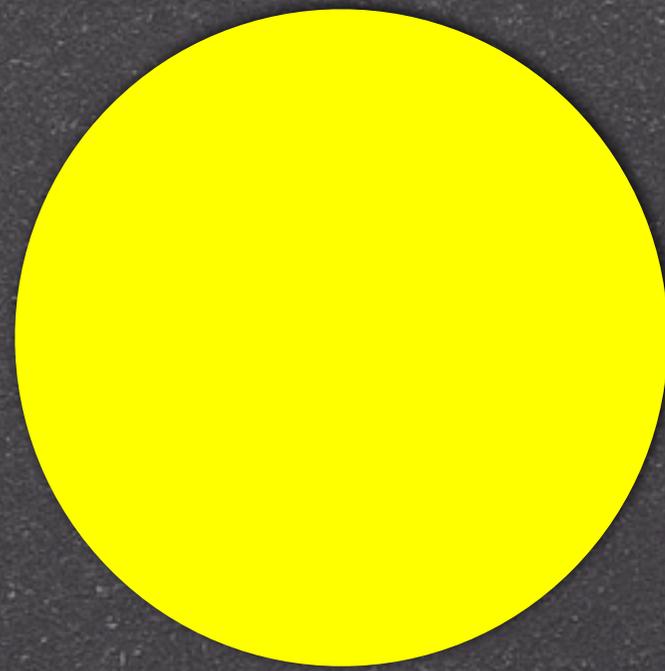
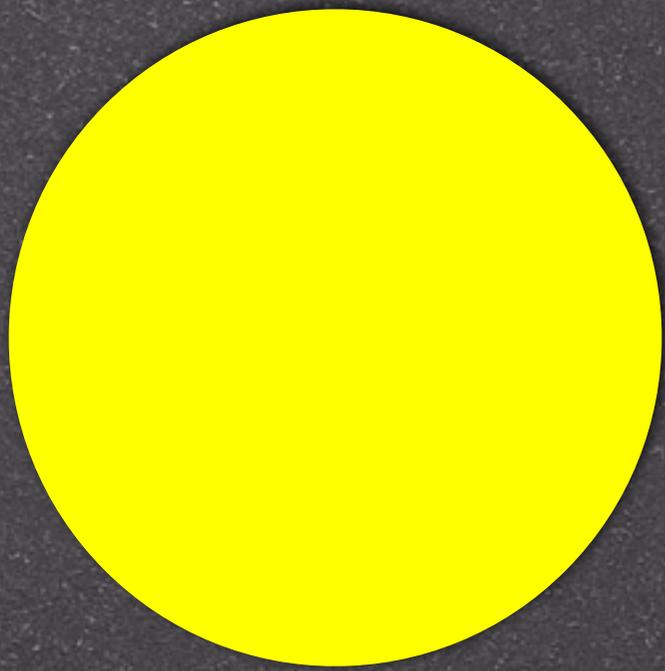
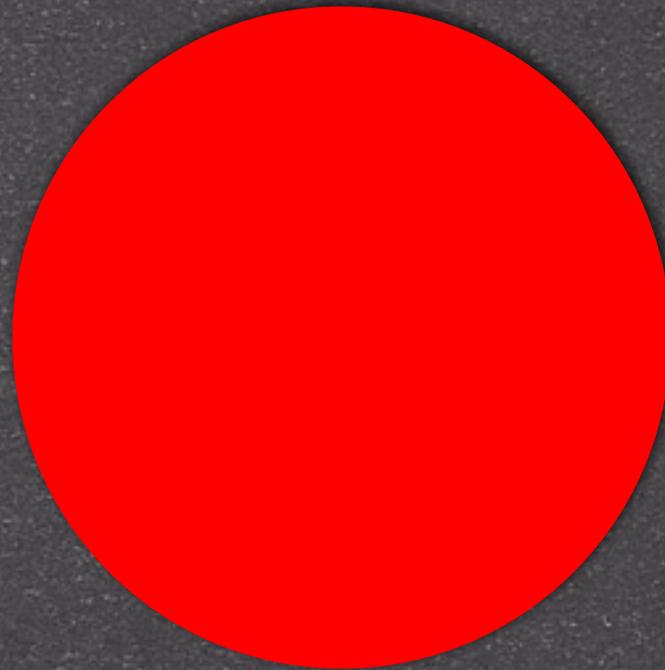
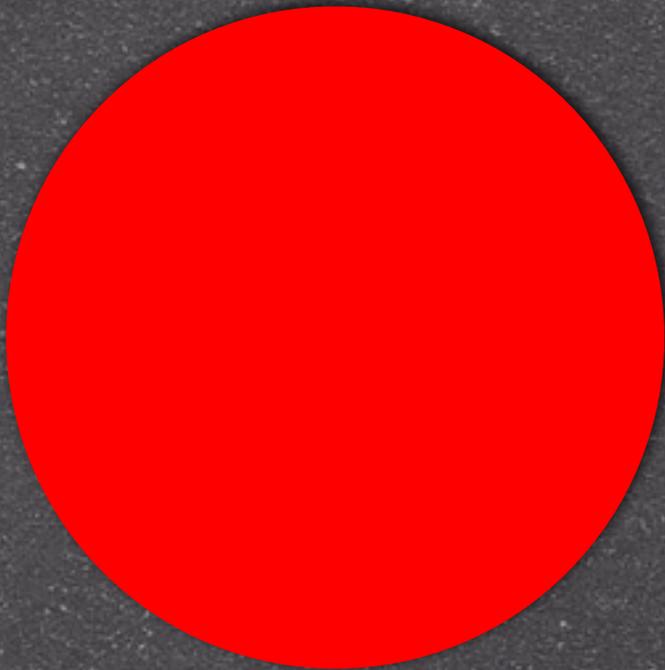
**Grande = forte**

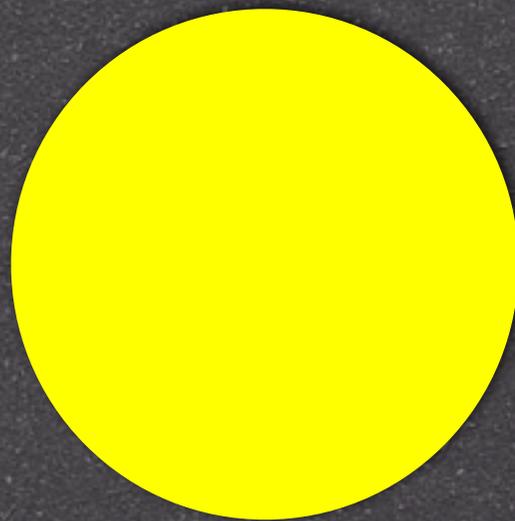
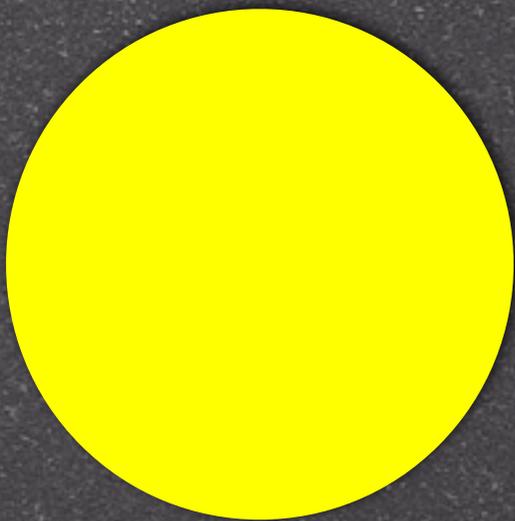
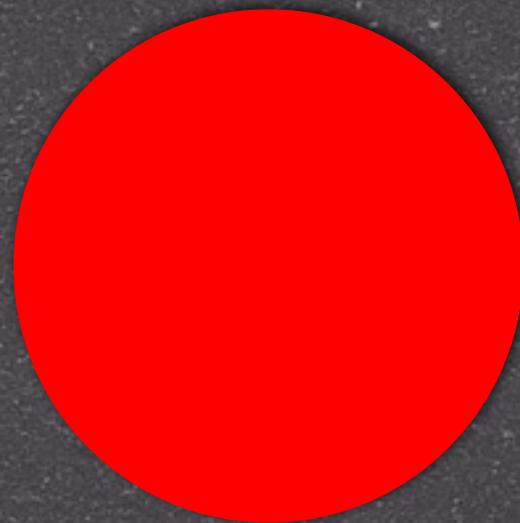
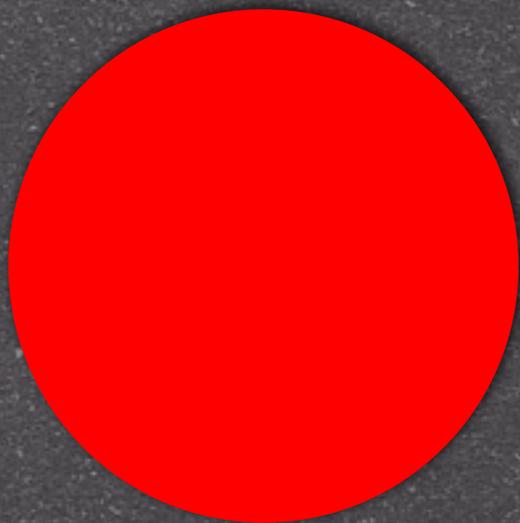
**Piccolo = piano**

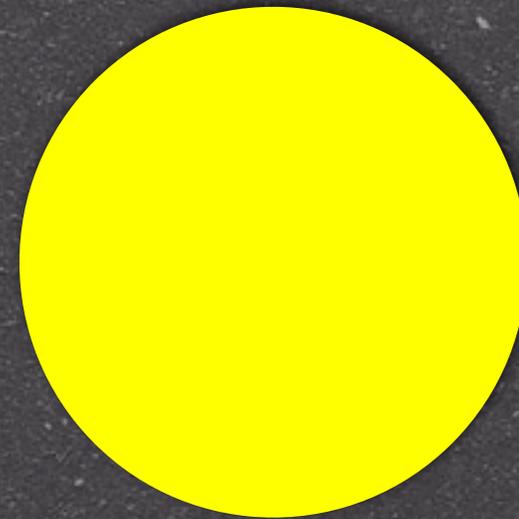
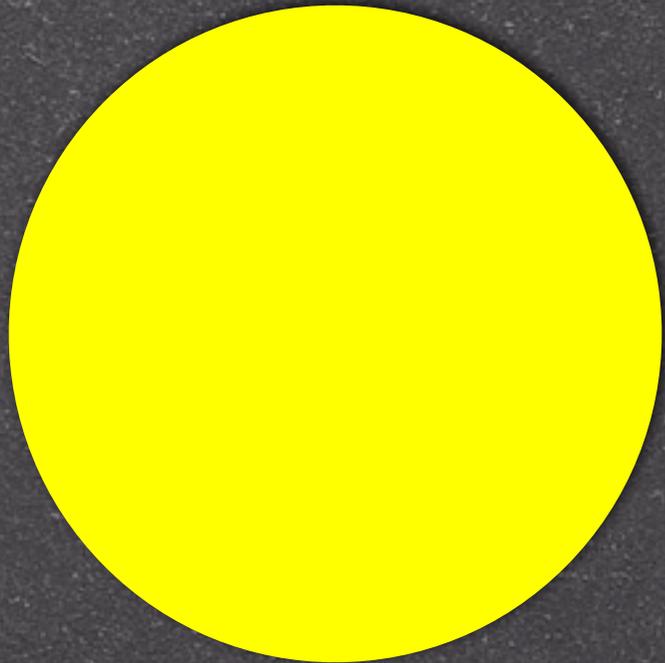
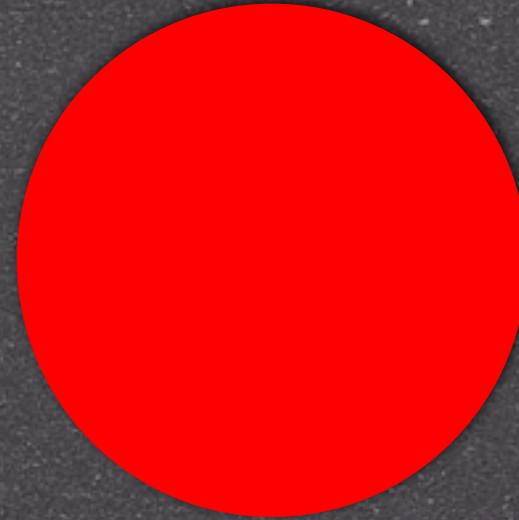
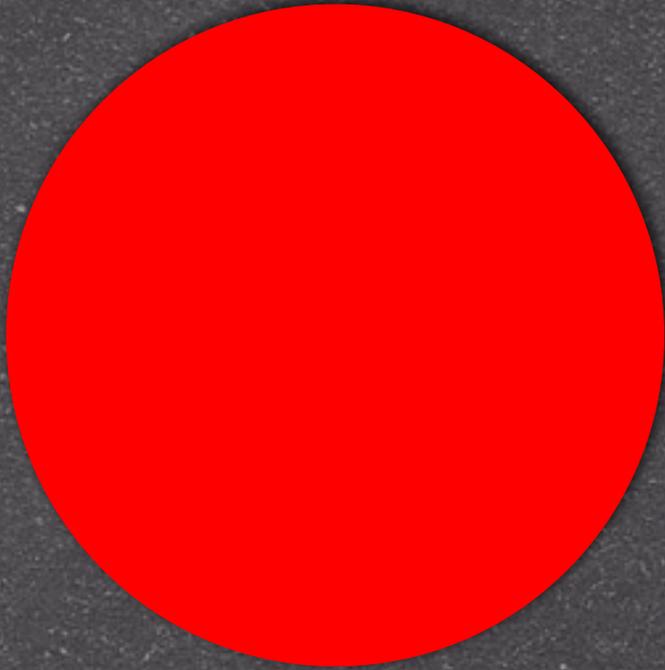
Con quattro

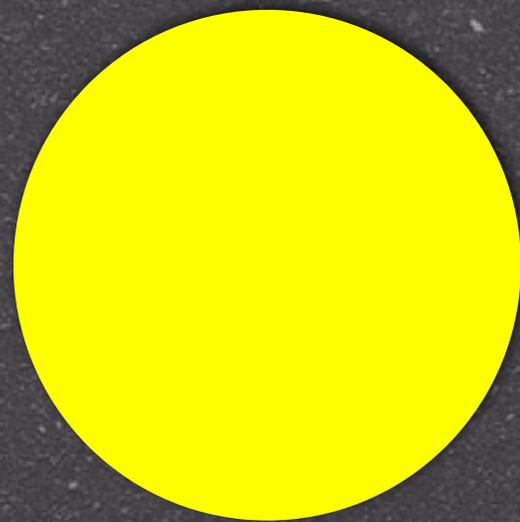
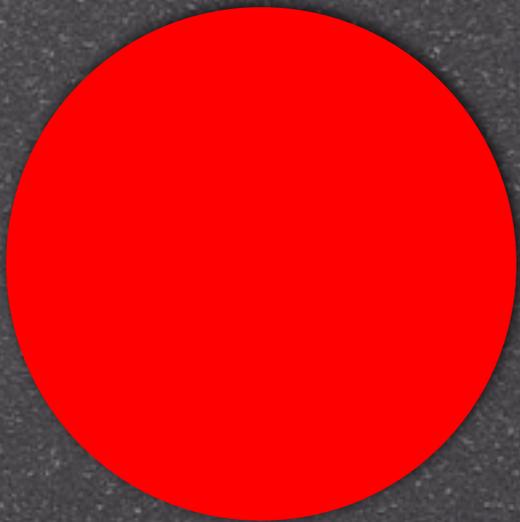
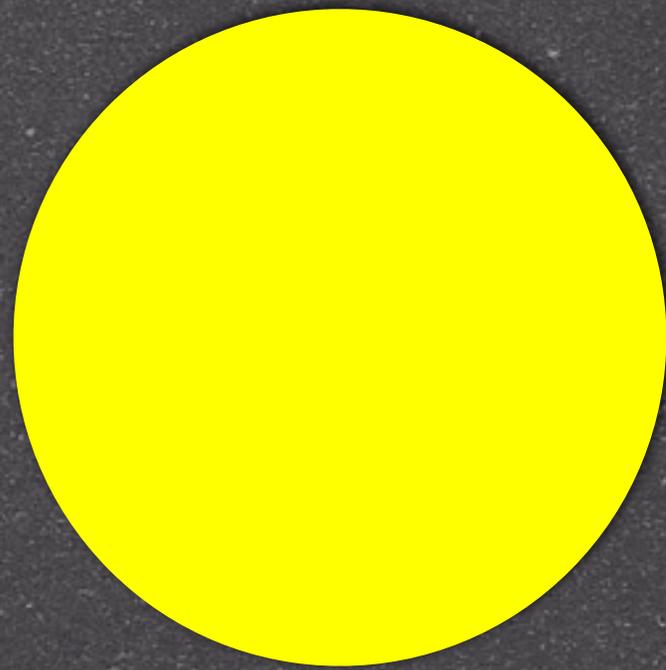
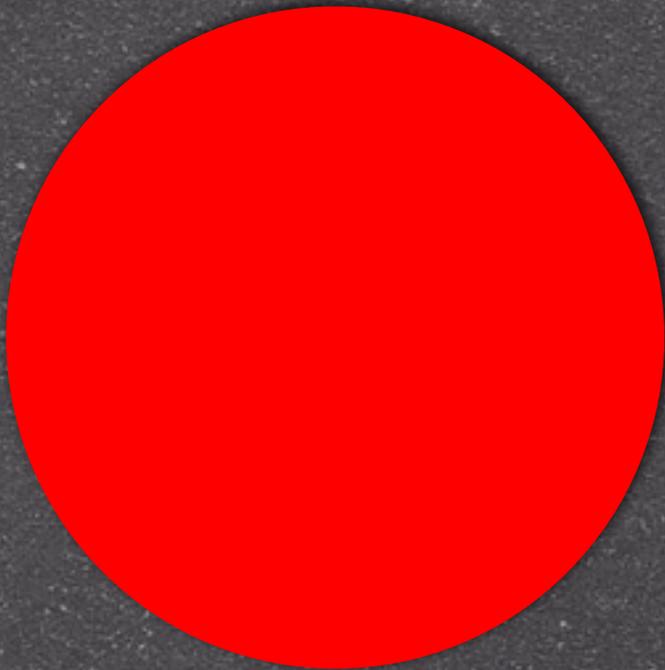


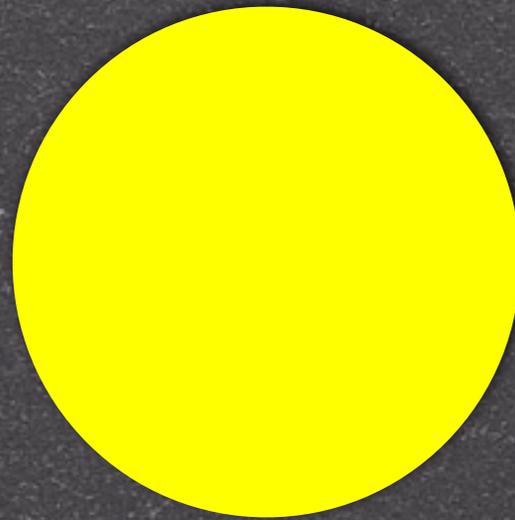












# Ora eseguite quanto segue

**Rosso = mani**

**Giallo = mani sulle gambe**

**Grande = forte**

**Piccolo = piano**

Ancora con quattro ...

# Ora eseguite quanto segue

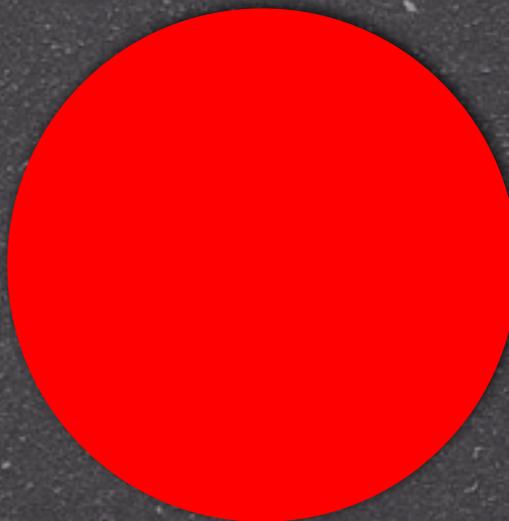
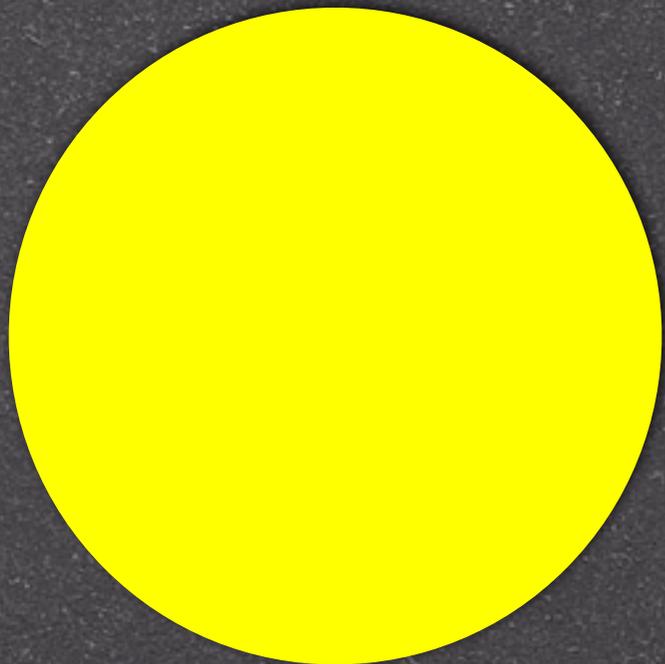
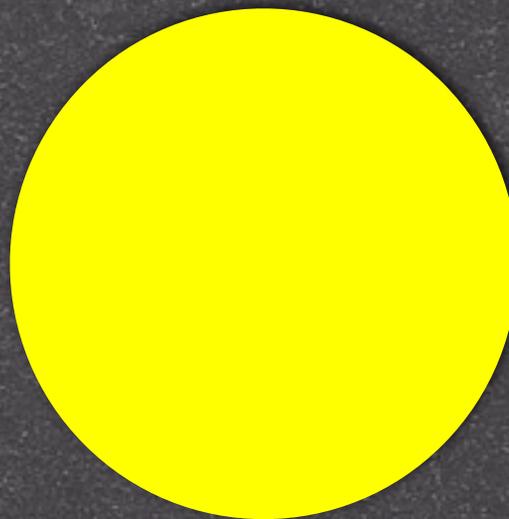
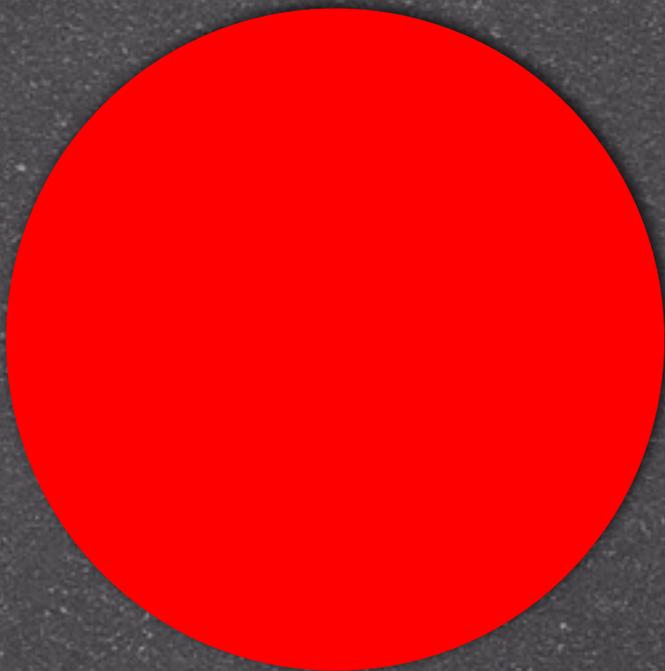
**Rosso = mani**

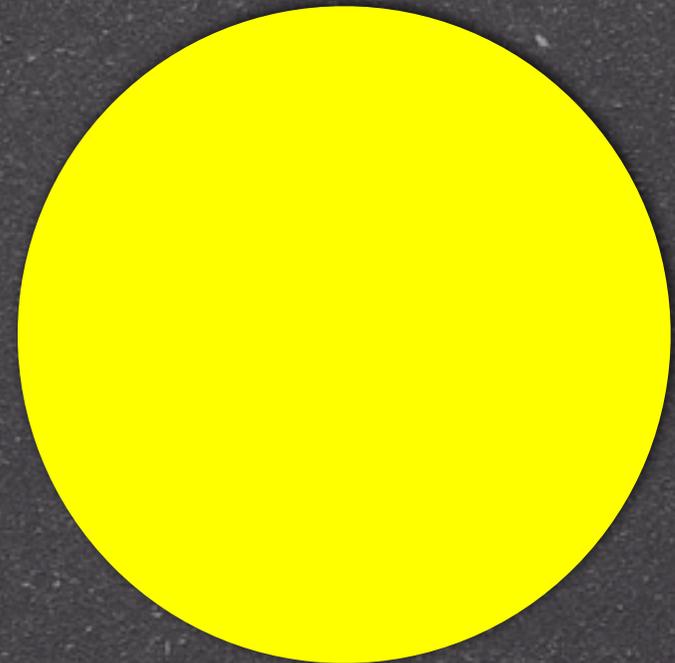
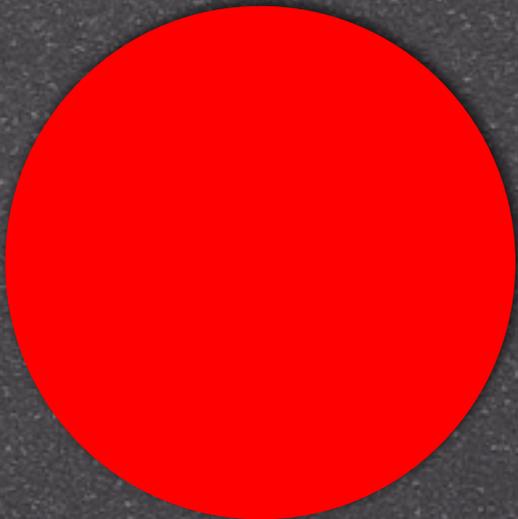
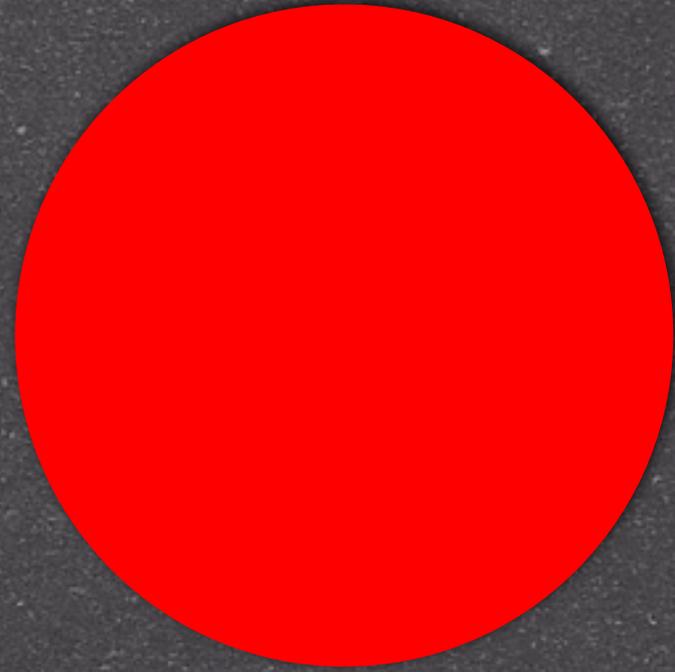
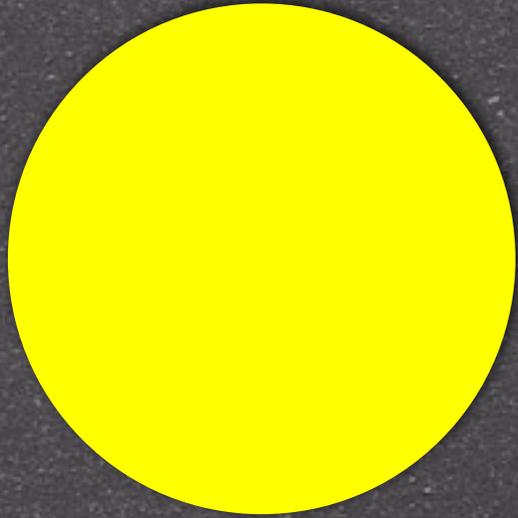
**Giallo = mani sulle gambe**

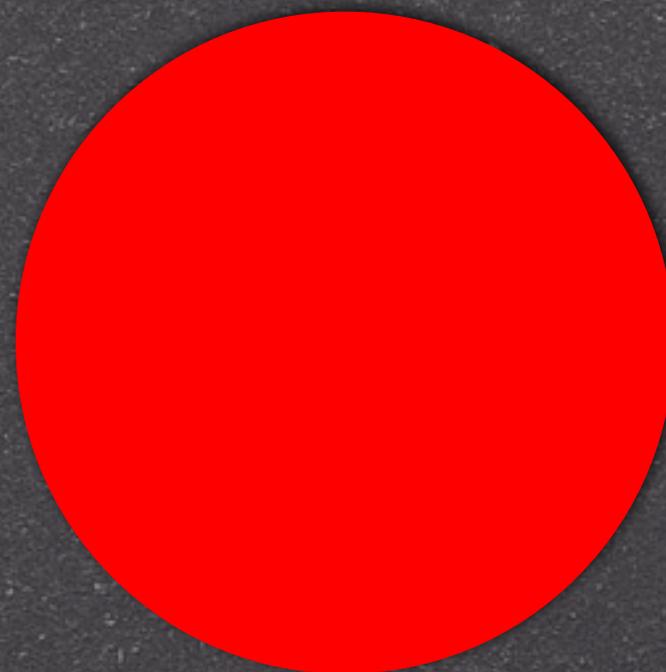
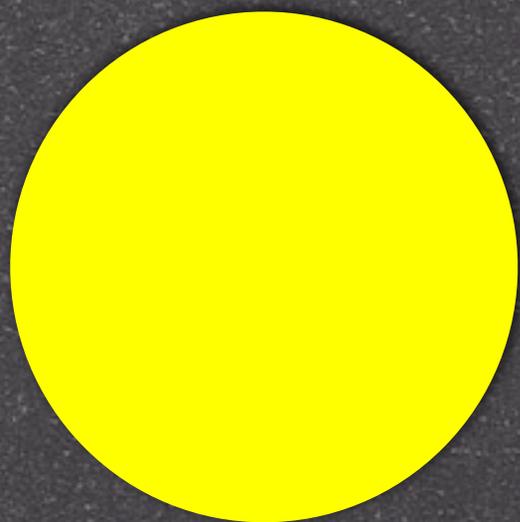
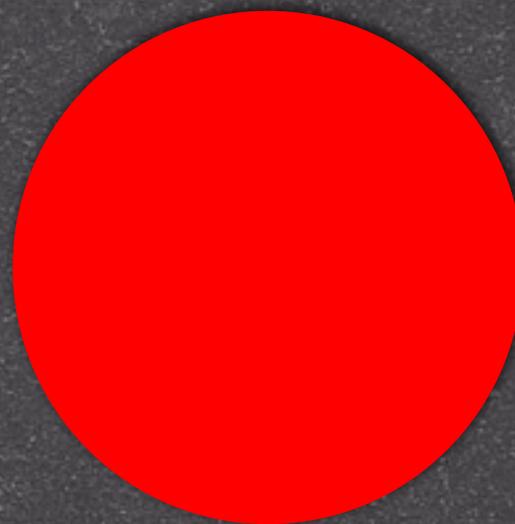
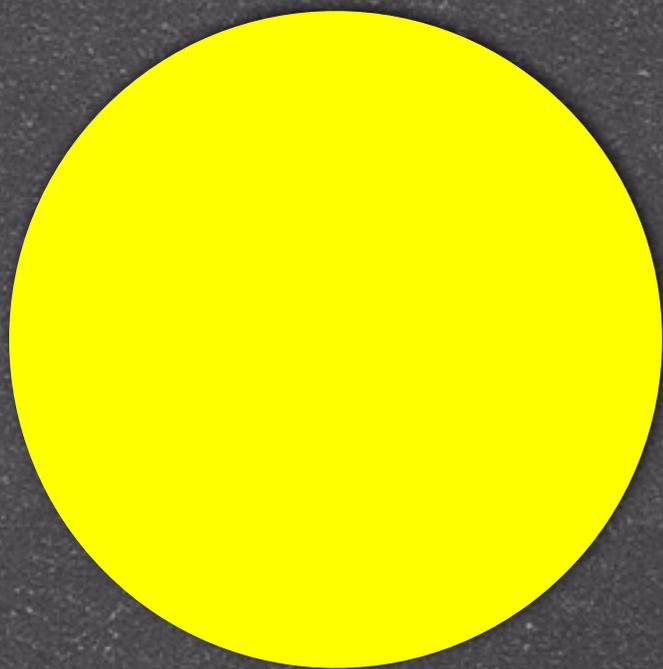
**Grande = forte**

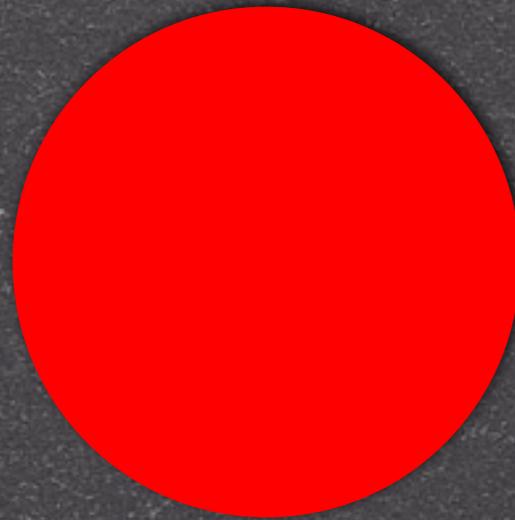
**Piccolo = piano**

Ancora con quattro ...









# Ora eseguite quanto segue

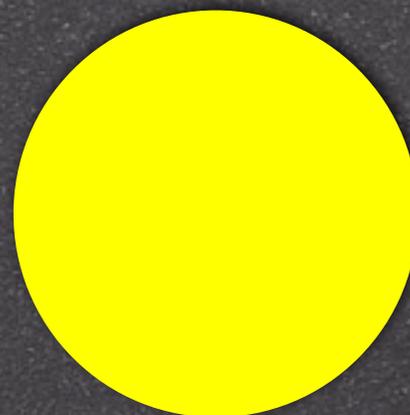
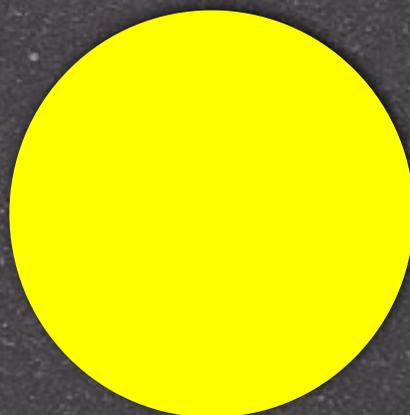
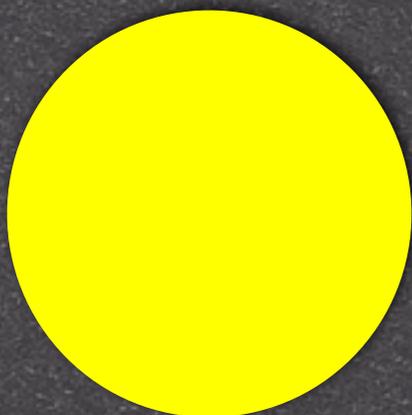
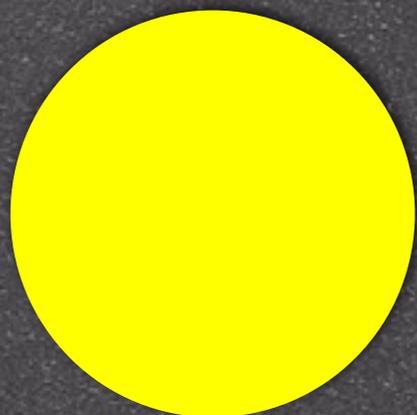
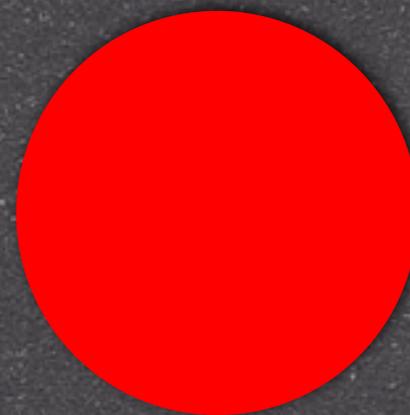
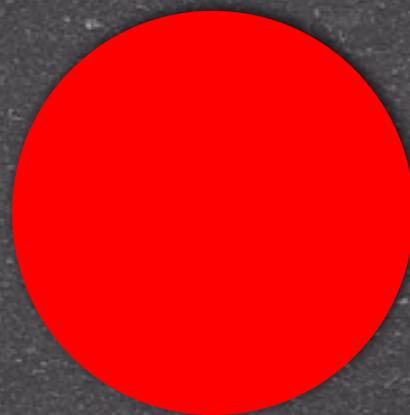
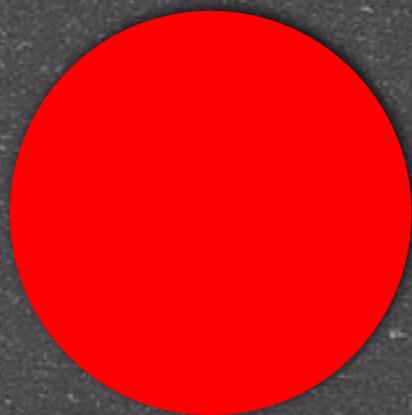
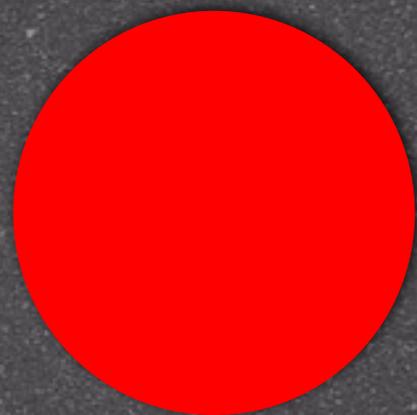
**Rosso = mani**

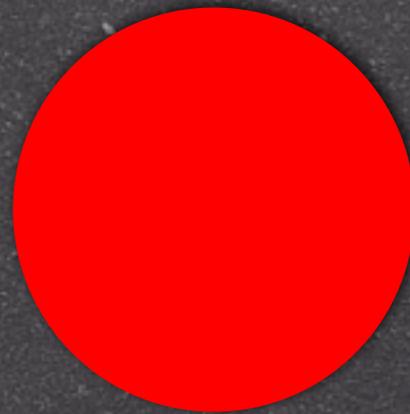
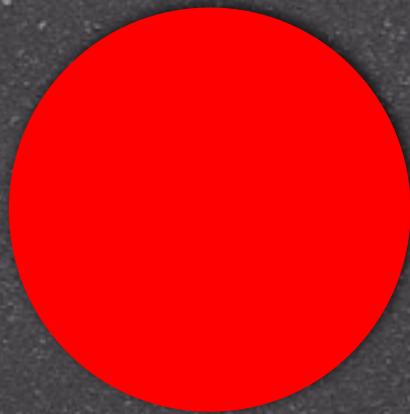
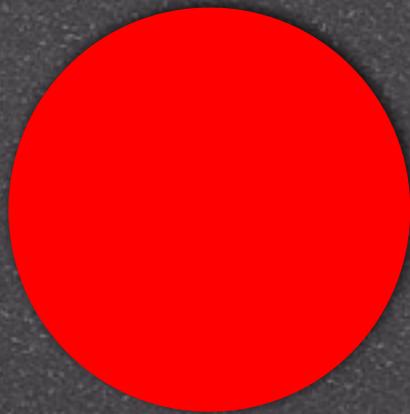
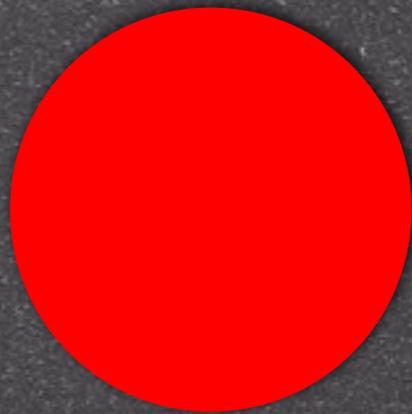
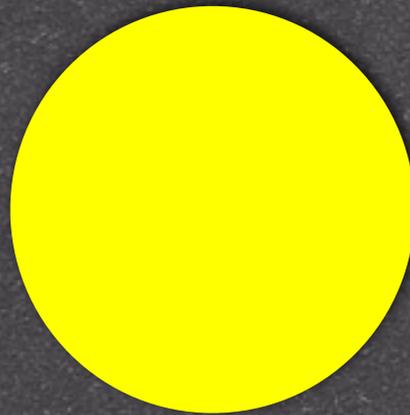
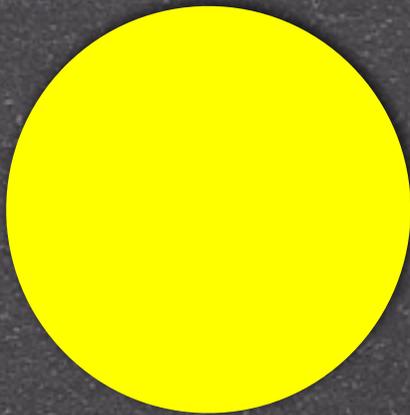
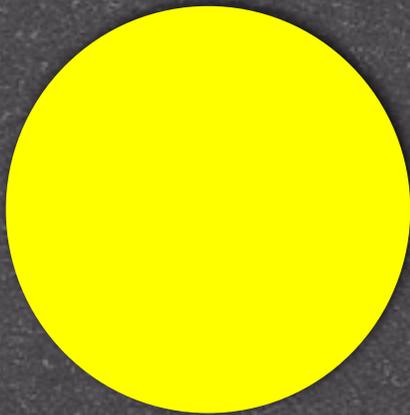
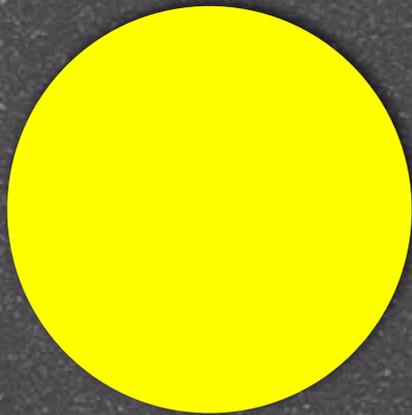
**Giallo = mani sulle gambe**

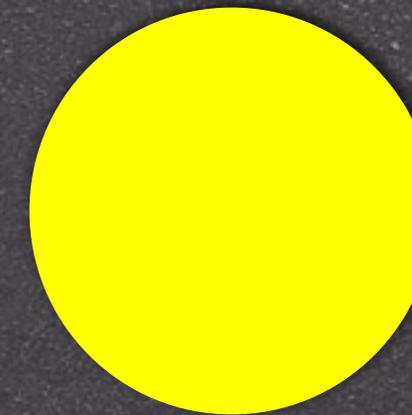
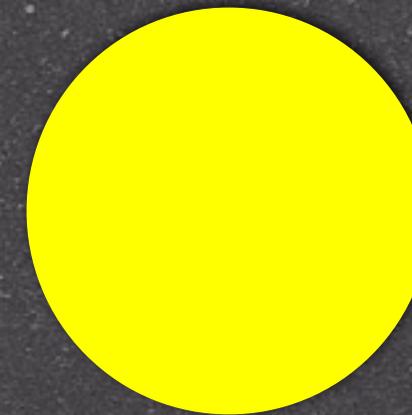
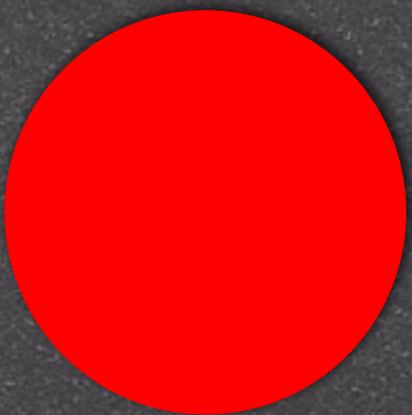
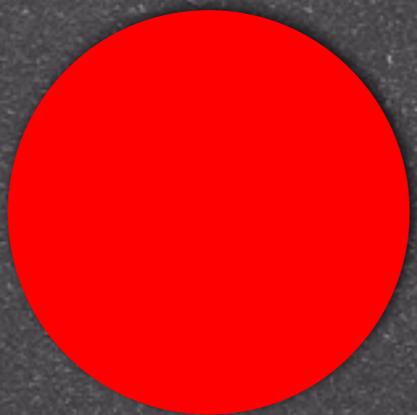
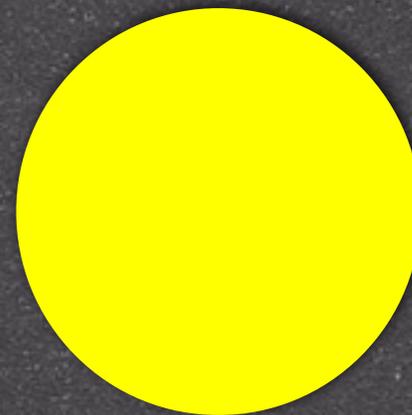
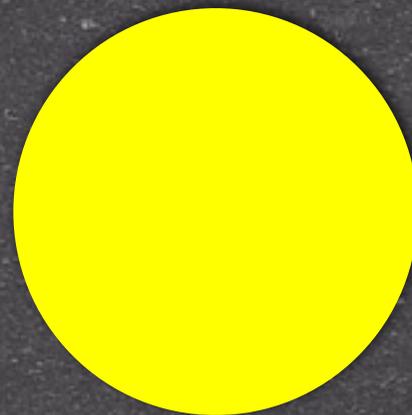
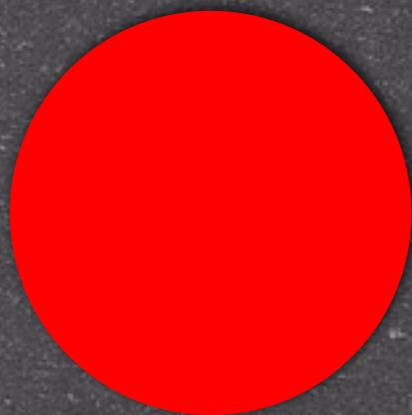
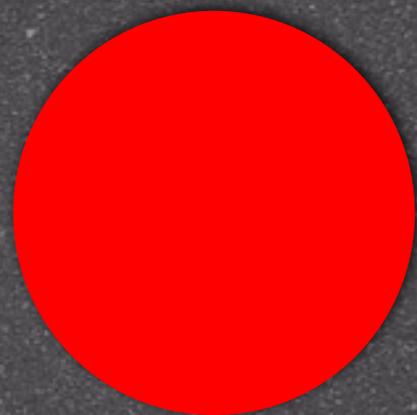
**Grande = forte**

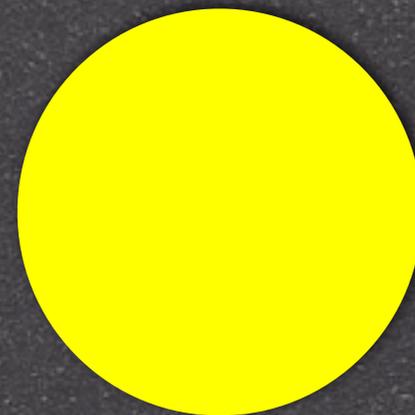
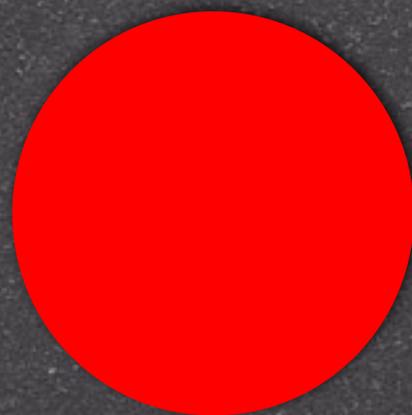
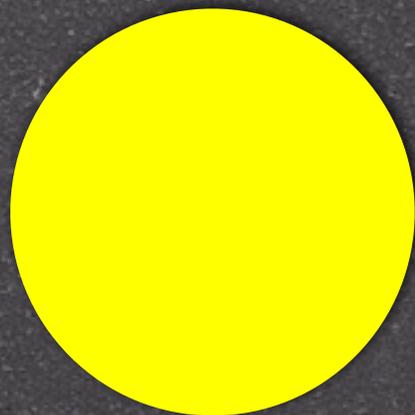
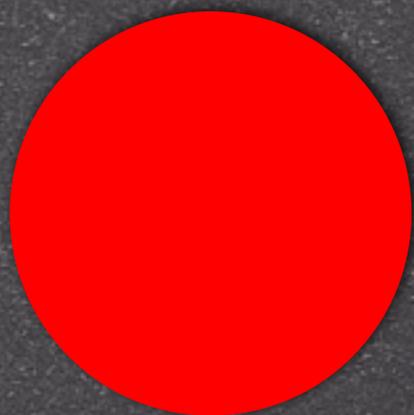
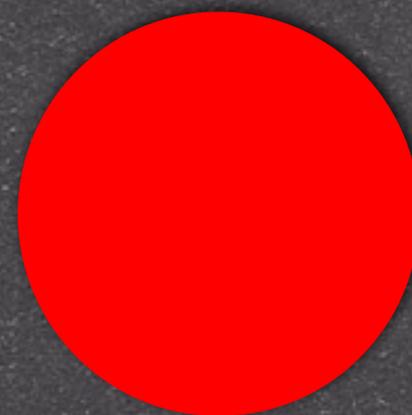
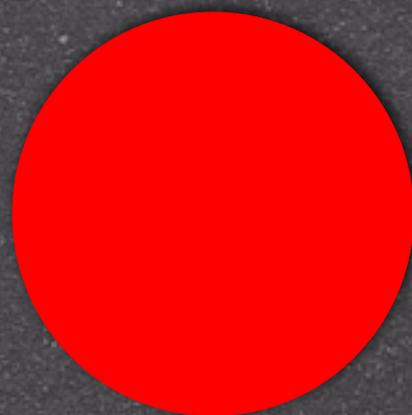
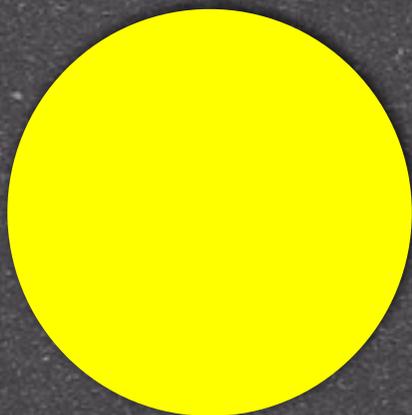
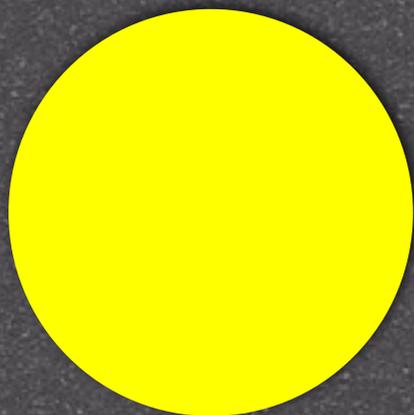
**Piccolo = piano**

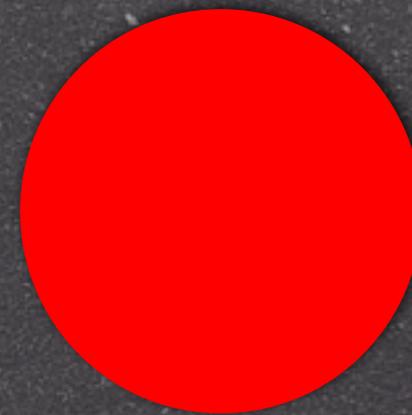
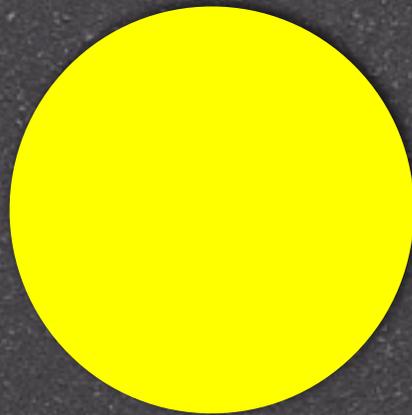
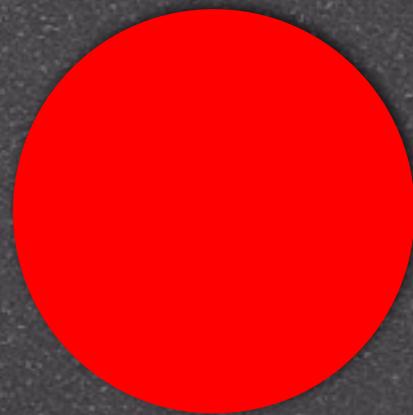
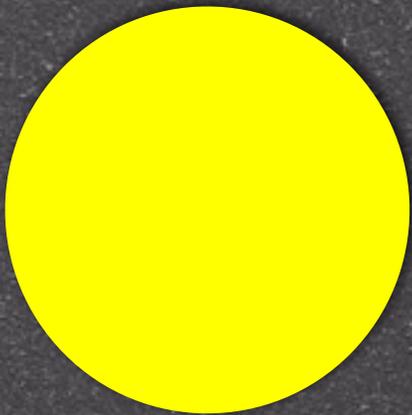
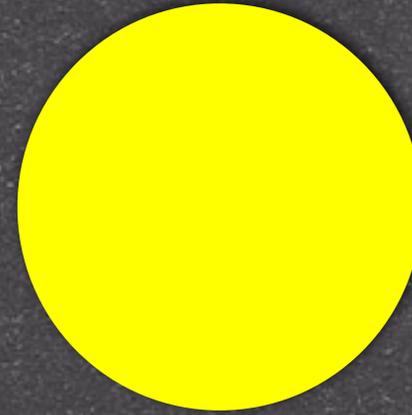
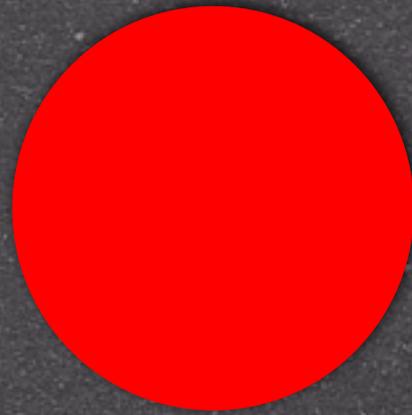
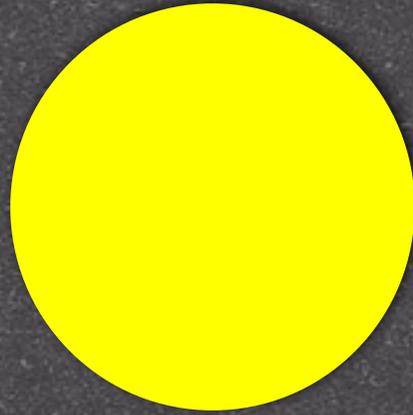
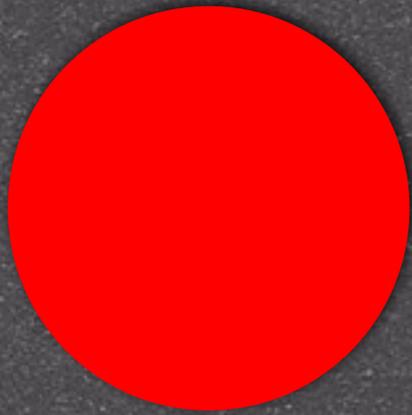
Con otto ...sull'immagine ferma:  
qualcuno, per favore, conti 1 2 3 4  
prima di partire per dare il tempo

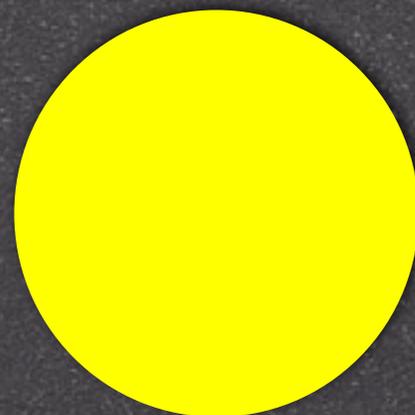
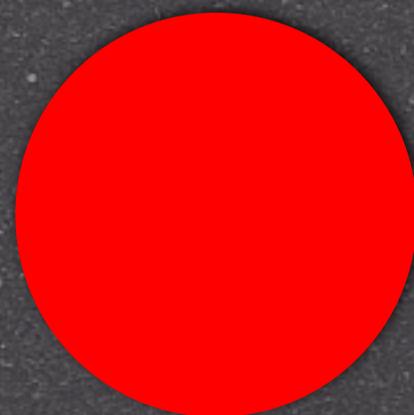
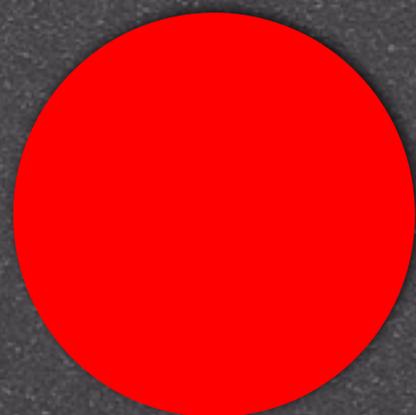
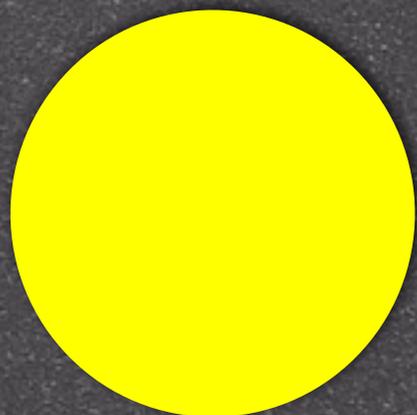
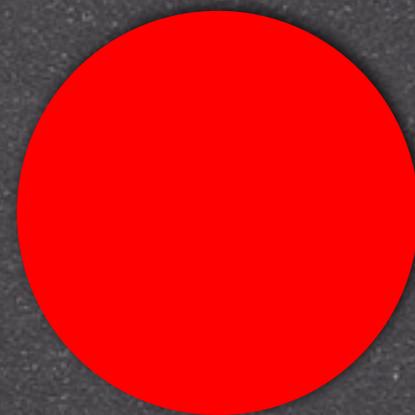
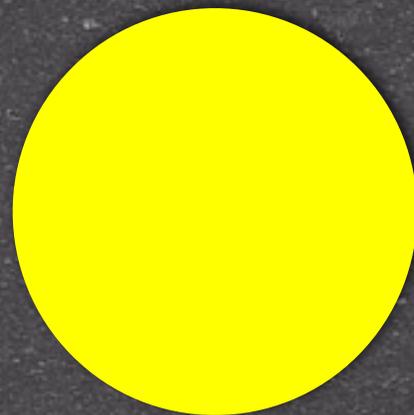
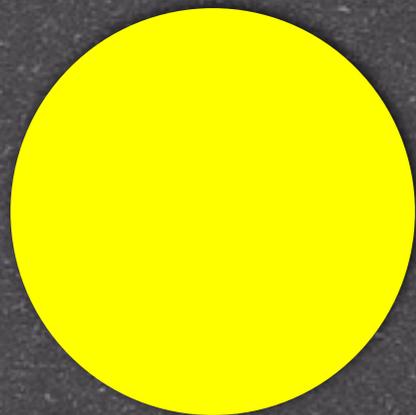
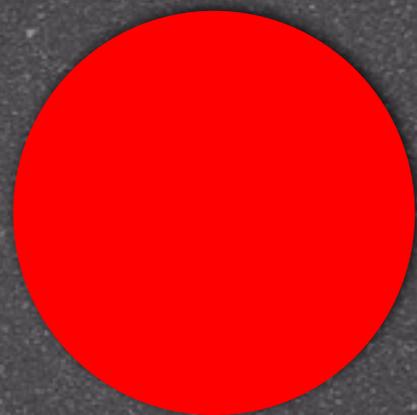


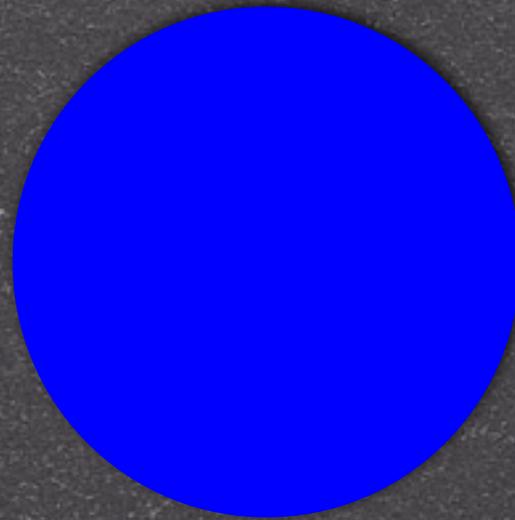








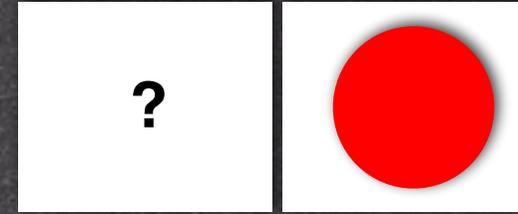
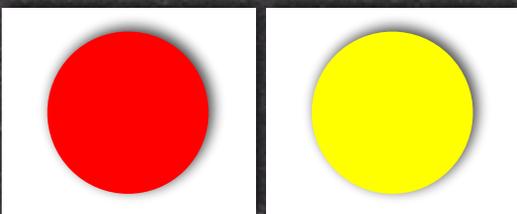
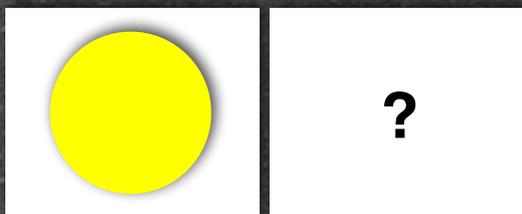
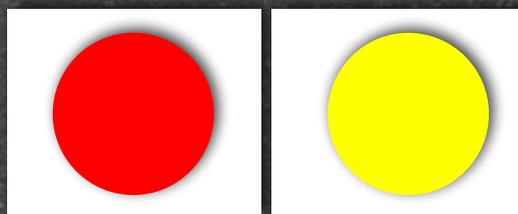
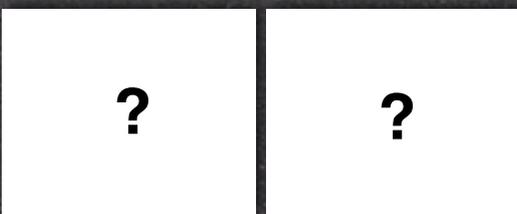
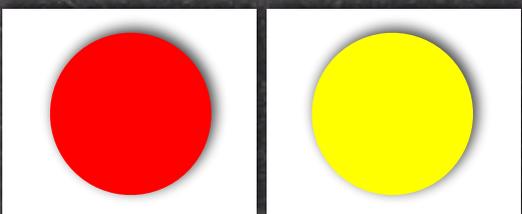
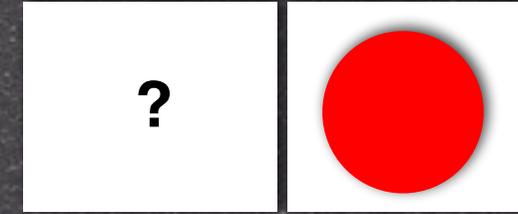
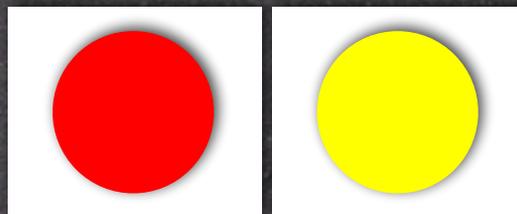
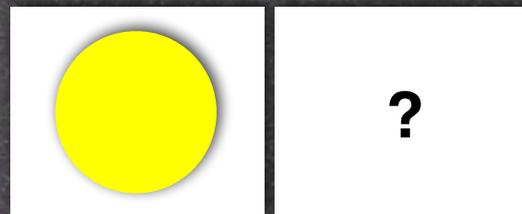
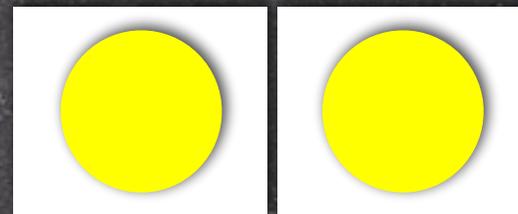
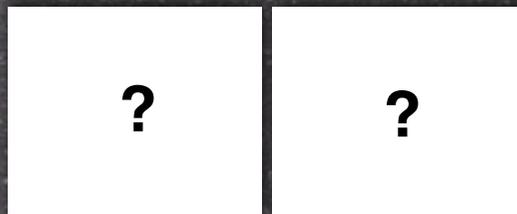
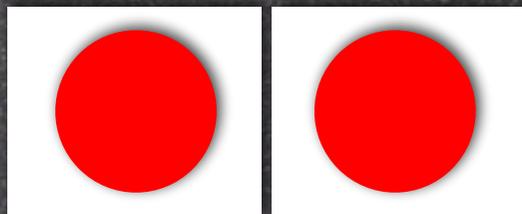


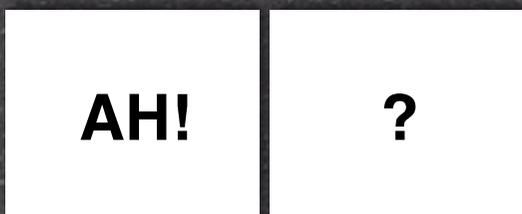
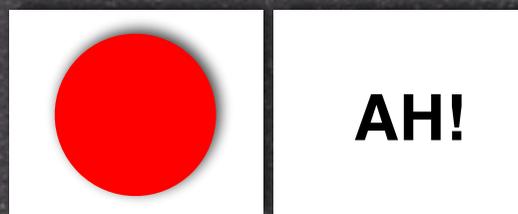
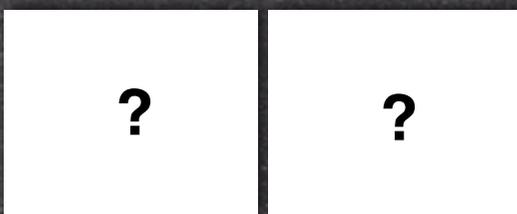
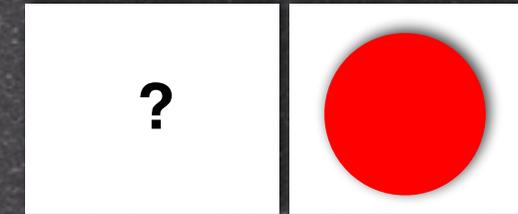
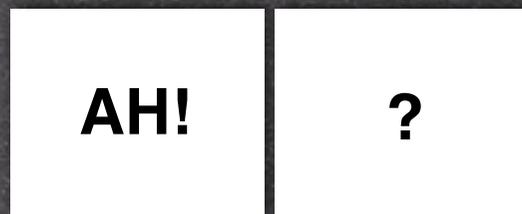
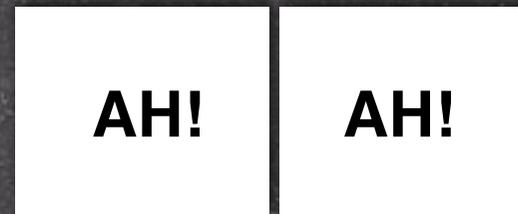
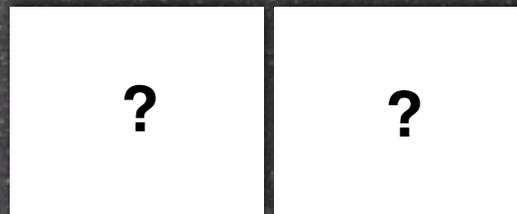
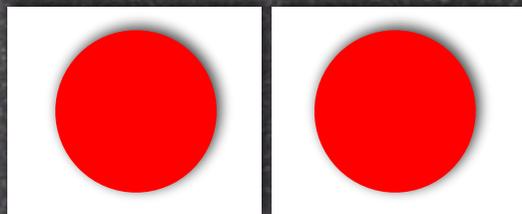


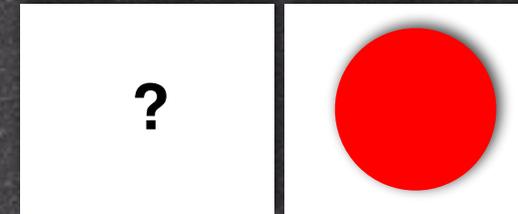
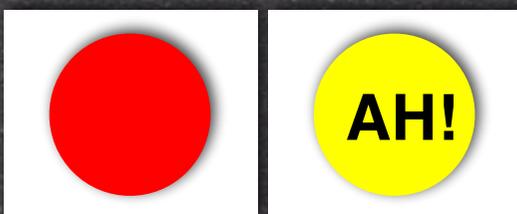
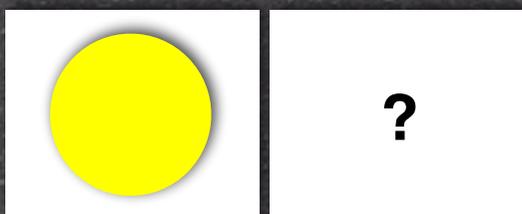
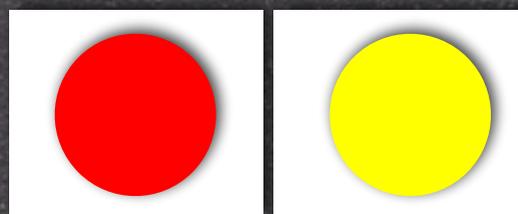
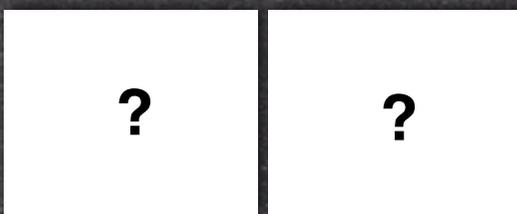
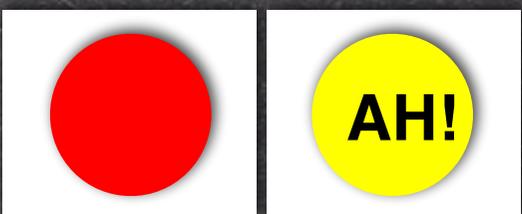
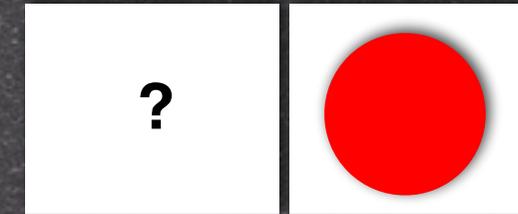
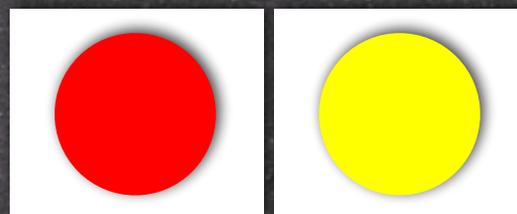
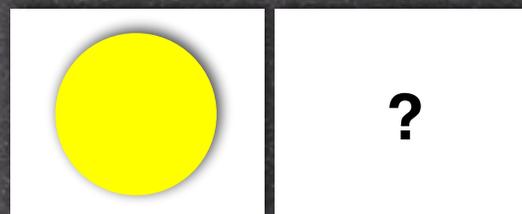
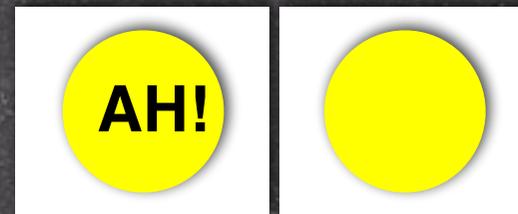
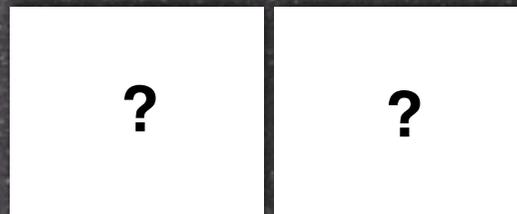
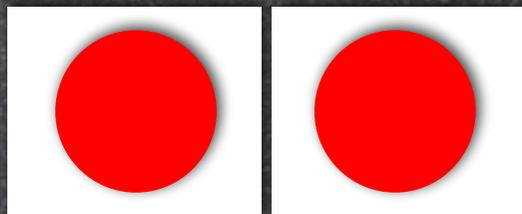
**Il domino è “soltanto” un  
gioco...**

**Rosso = mani  
Giallo = mani sulle gambe**

**E se iniziassimo a usarlo ...  
per suonare?**







**I tre esempi vi sono sembrati  
tutti della stessa  
complessità?**

**Per quali ragioni?**

# La Musica in testa... la musica “fantasma”: ascoltare e ricordare

Sara Radin

Scuola di Didattica della Musica  
Biennio Specialistico di II Livello

Formazione dei Docenti classe di Concorso di Strumento musicale

*Allegro studiando*

Lo studio nel pianista principiante: riflessioni metodologiche  
e proposte didattiche

Due esempi dalla Tesi di Diploma, 2008

**Ascoltate osservando la  
partitura  
e  
ricordate**

**..... ritrovate**

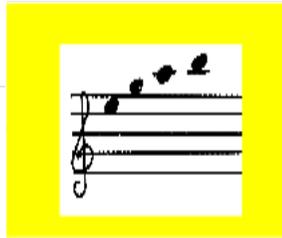


La Musica in testa... la musica “in  
diretta”: pensare e comporre

**Ascoltate osservando la  
partitura  
e  
scegliete**

**..... componete**

Mélodie pentatonique



Moderato, ♩ = 94-98

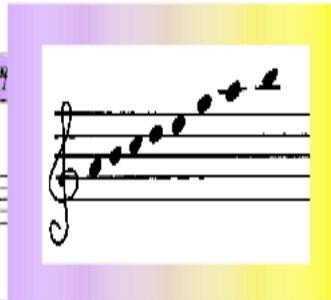
*f*, *in rilievo*

The first system of a musical score in 2/4 time. The right hand (treble clef) has a melody starting with a whole rest, followed by a quarter note G4, and then a series of eighth notes: A4, B4, C5, D5, C5, B4, A4, G4. The left hand (bass clef) plays a steady eighth-note accompaniment: G3, A3, B3, C4, D4, E4, F4, G4, A4, B4, C5, D5, C5, B4, A4, G4. The melody is highlighted in yellow.

The second system of the musical score. The right hand continues the melody with eighth notes: G4, A4, B4, C5, D5, C5, B4, A4, G4. The left hand continues the accompaniment. The melody is highlighted in yellow.



The third system of the musical score. The right hand continues the melody with eighth notes: G4, A4, B4, C5, D5, C5, B4, A4, G4. The left hand continues the accompaniment. The melody is highlighted in purple.



# La Musica in testa... la musica “in azione”: le fonti del creare

Maurizio Goina, Pietro Polotti  
Scuola di Musica e Nuove Tecnologie

EGGS: un sistema per dare suono al gesto  
Gamelunch: un tavolo da pranzo sonante

Due esempi di interazione tra uomo, computer e suono

# La Musica in testa... la musica “insieme”: le basi della cooperazione

Claudia Sedmach

Scuola di Didattica della Musica  
Biennio Specialistico di II Livello

Formazione dei Docenti classe di Concorso di Strumento musicale

Otto studi per pianoforte e gesti-suono  
Orientamento e controllo motorio sulla tastiera attraverso un piccolo  
repertorio giocoso

Tesi di Diploma, 2008

**Ascoltate osservando la  
partitura  
e  
l'interprete**

**..... seguendo la partitura, provate con noi**

● **BATTERE LE MANI**

◇ **SILENZIO**

**1 2 3... CONTARE**

1 2 3 4 | 1 2 ● ● | 1 2 3 | 1 2 ● 4 |

1 2 ● 4 | 1 ● ● | 1 2 3 ● | 1 ● 3 4 |

1 2 3 4 | 1 2 ● ● | 1 2 3 | 1 2 ● 4 |

1 2 3 4 | 1 2 3 4 | 1 2 3 | 1 2 3 |

● ● ◇ | ● ● ◇ |

1 2 3 4 | 1 2 ● ● | 1 2 3 | 1 2 ● 4 |

1 2 3 4 | 1 2 3 4 | 1 2 3 | 1 2 3 |

● ● ◇ | ● ● ◇ |

• **BATTERE LE MANI**

◇ **SILENZIO**

**123...CONTARE**

**I**

1	2	3	4
1	2	•	•
1	2	3	
1	2	•	4
1	2	•	
1	•	•	
1	2	3	•
1	•	3	4

1	2	3	4
1	2	•	•
1	2	3	
1	2	•	4
1	2	3	4
1	2	3	4
1	2	3	
1	2	3	
•	•	◇	
•	•	◇	

1	2	3	4
1	2	•	•
1	2	3	

**II**

1	2	•	4
1	2	3	4
1	2	3	4
1	2	3	
1	2	3	
•	•	◇	
•	•	◇	

1	2	3	
1	2	•	•
1	2	3	4
1	2	•	◇
1	2	3	
1	2	3	
1	2	3	4
1	2	3	4
•	•	◇	
•	•	◇	

1	2	3	
1	2	•	•
1	2	3	4
1	2	•	◇

**III**

1	2	3	
1	2	3	
1	2	3	4
1	2	3	
•	•	◇	
•	•	◇	

1	2	3	4
1	2	◇	•
1	2	3	
1	2	•	◇
1	2	3	
1	2	3	4
1	2	3	
•	•	◇	
•	•	◇	
1	2	3	



Se non avete trovato  
risposta  
soddisfacente ad  
alcuna di queste  
domande, allora  
avete iniziato a  
interrogarvi  
scientificamente,  
educativamente... ..  
sulla musica

... grazie

A cura di Cristina Fedrigo

Laboratorio Conservatorio Tartini  
La Musica in Testa, TRIESTE 2009