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exoskeleton for learning music





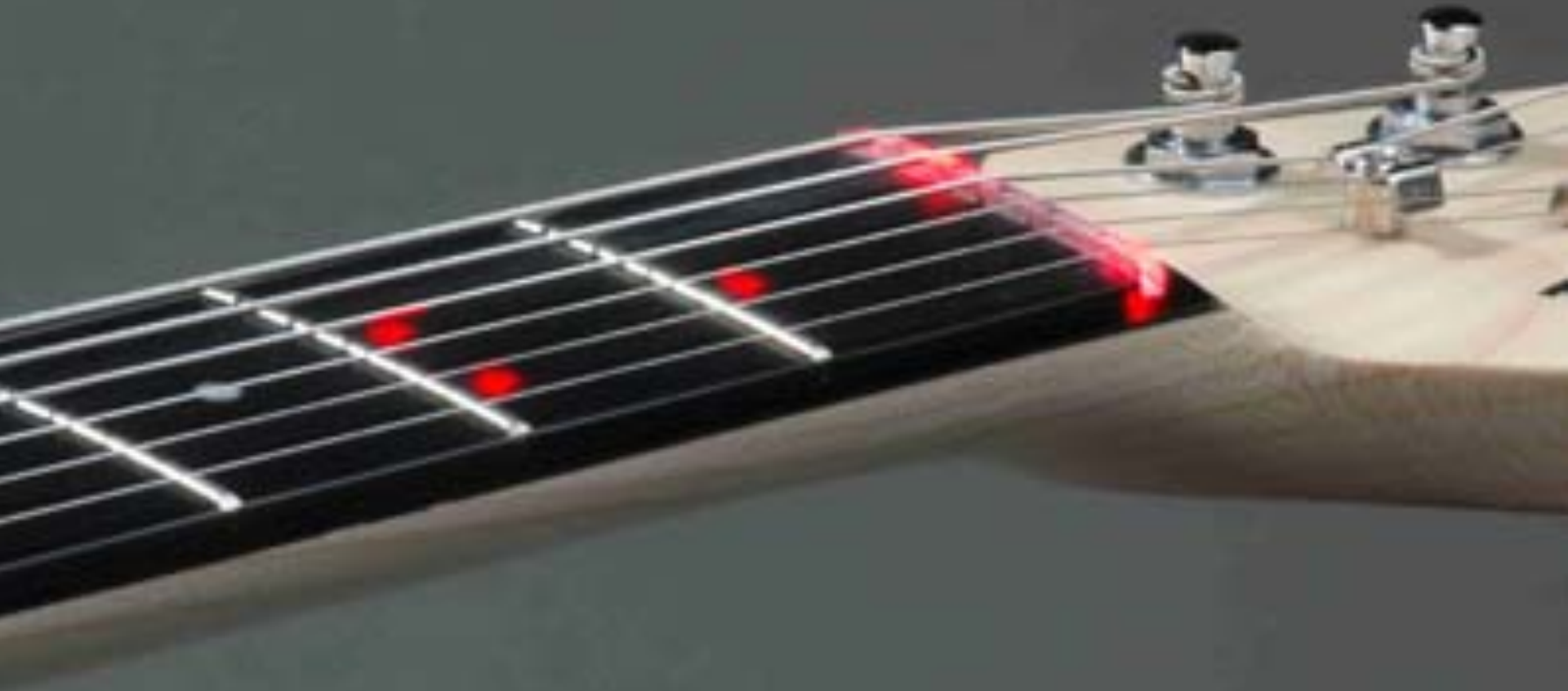
Suzuki Method



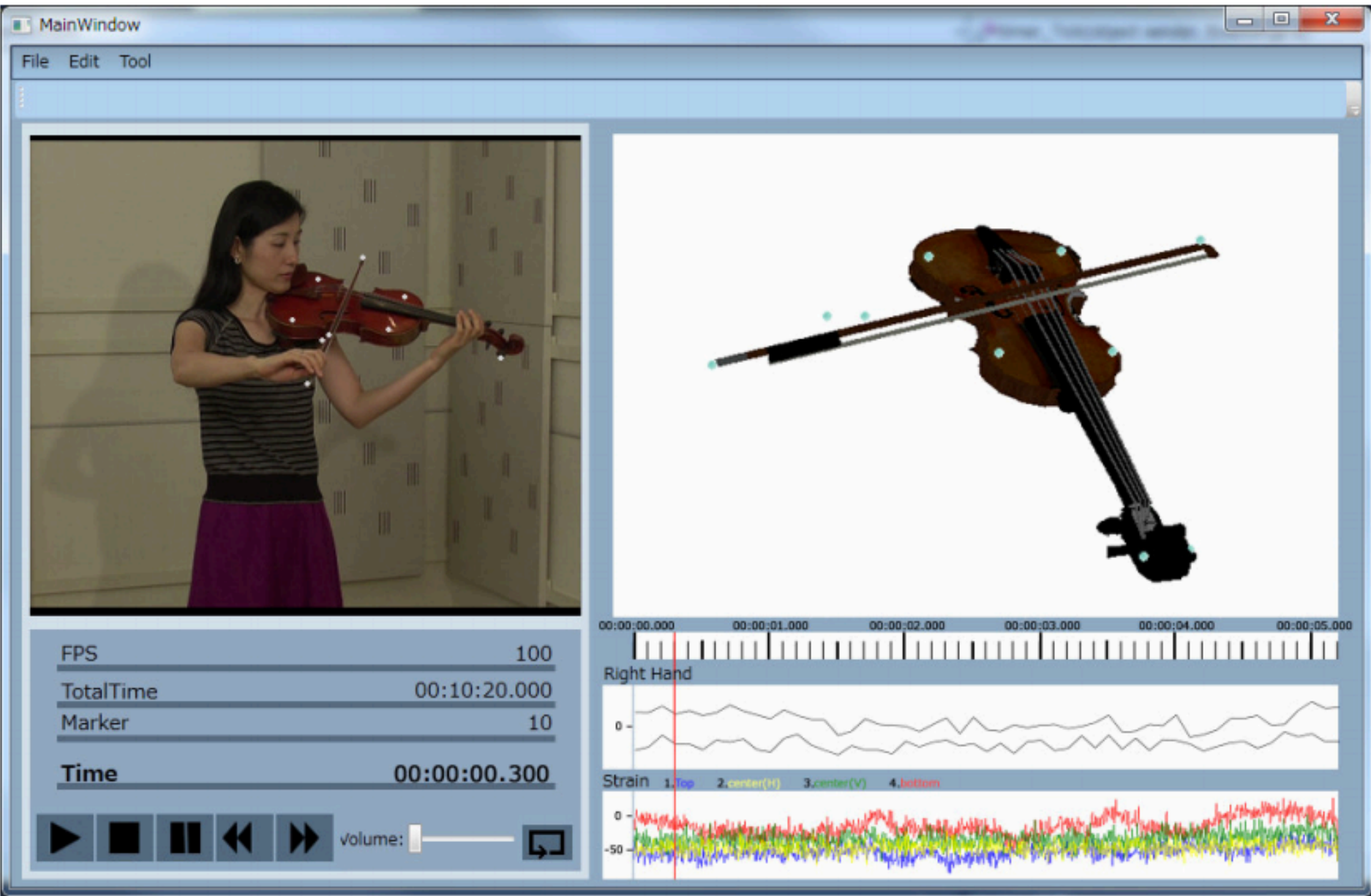
PossessedHands
Tamaki, Rekimoto 2010



Piano Touch
Huang, Starner 2011



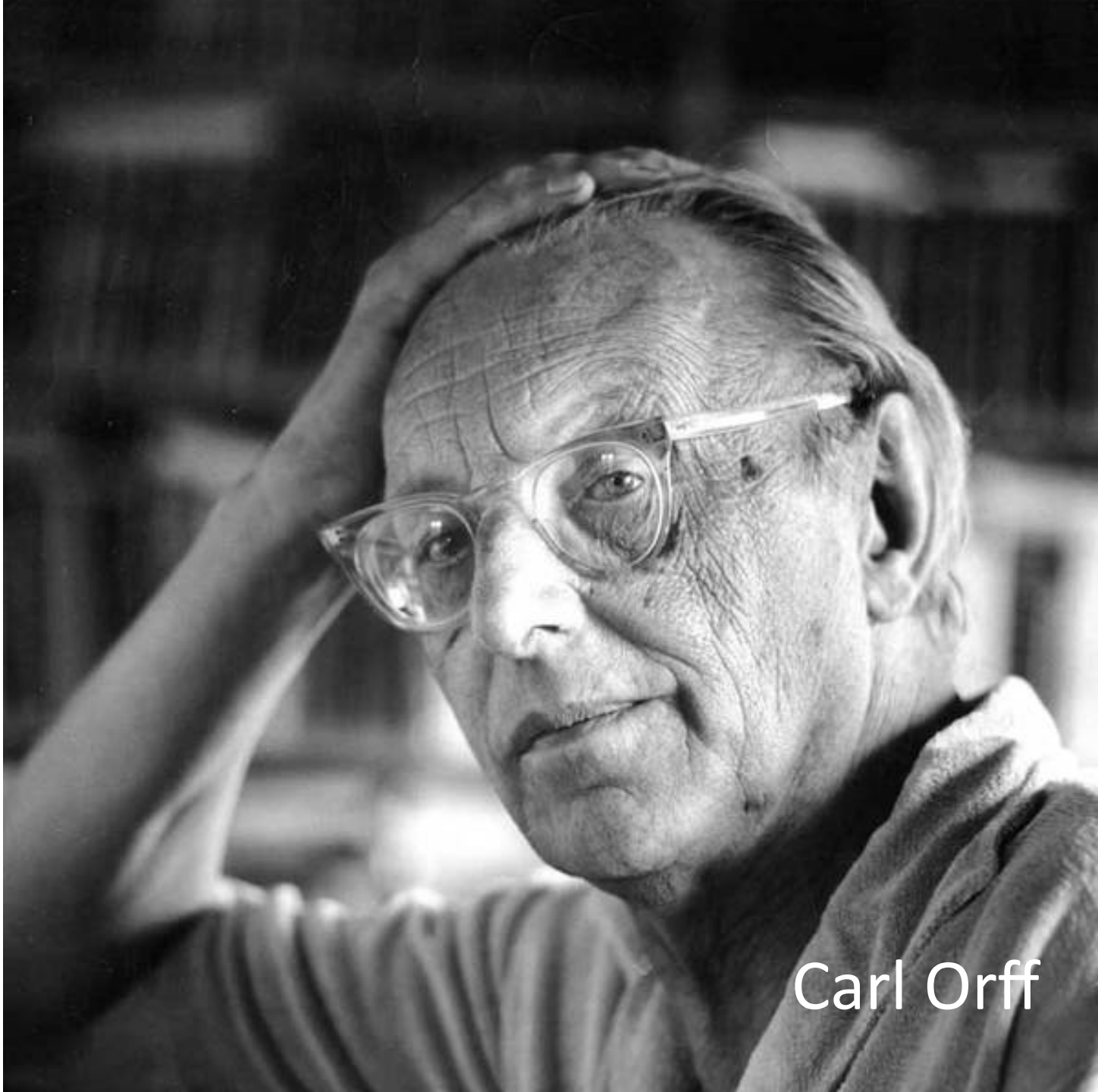
LED-Fret
FretLight Inc



Camera tracked violin bowing

Tanjo, Ando et al 2011





Carl Orff



- .Exploration
- .Imitation
- .Improvisation
- .Composition

Orff Schulwerk

.Exploration

pick up any instrument, learn by exploration, make mistakes – make music

.Imitation

instant gratification by playing live music

.Improvisation

refer and cues, review

.Composition

share

.Exploration

suggest chords, rhythm beats over bone transduction

.Imitation

suggestive play

.Improvisation

audio cues

.Composition

review ,share

.Analogue

no digital alteration to the instrument, pure acoustic music

.Sensing

camera free, resistive –current/voltage sensing, take out in the open

.Dexterity

subtle force based actuations with exposed fingers, free motion

.EarFree

listen through body, no headphones, personal and true to music



.Exoskeleton

Actuation

Sensing

Ergonomics

.Music

Orff school

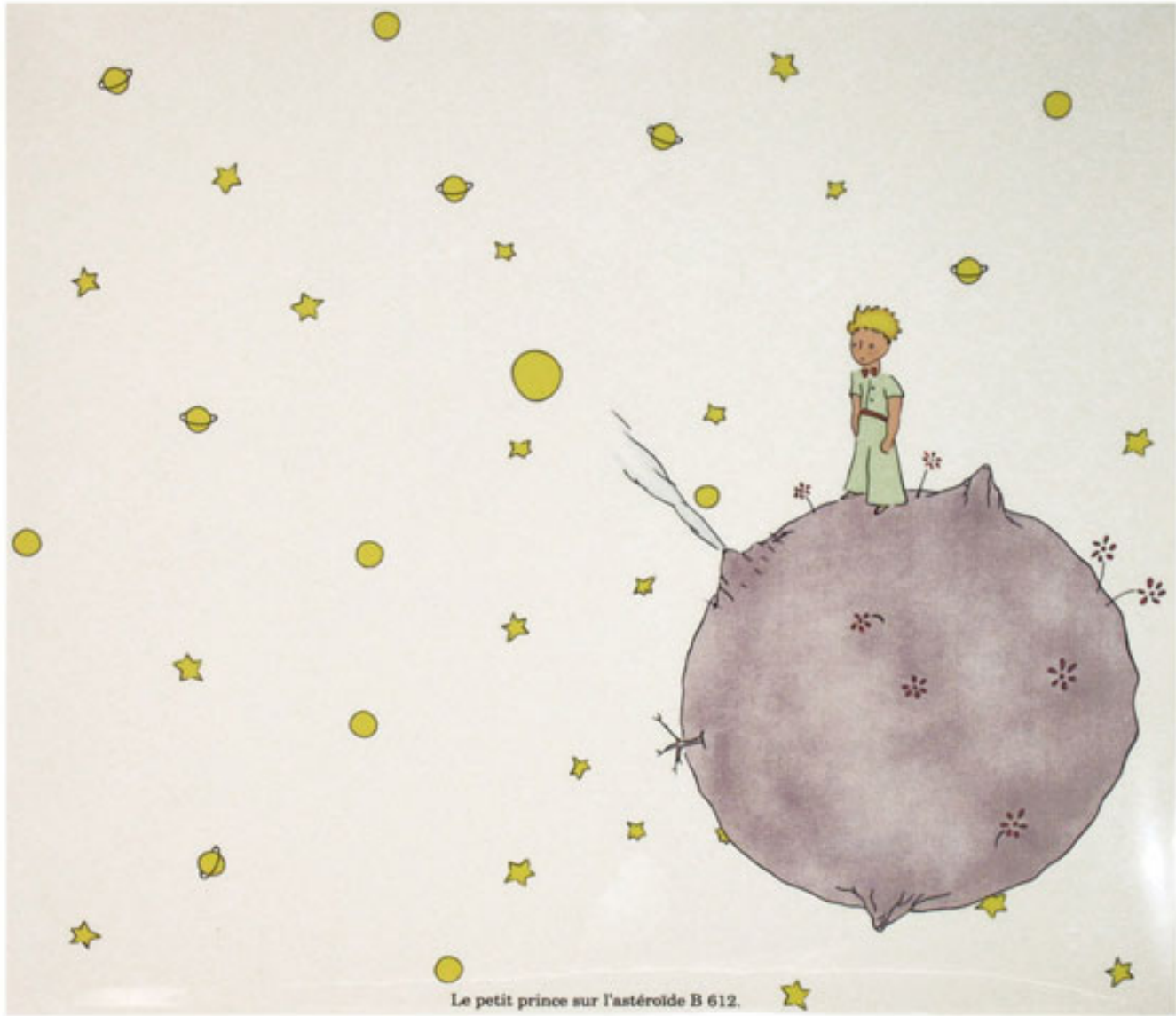
.Teach

Exploration

Different instruments

In the open

Process based



Le petit prince sur l'astéroïde B 612.