Use of the diminished 7th arpeggio:

From the perspective of playing an improvised lead solo over a set of chord changes, the diminished 7th arpeggio is useful for two reasons:

- You can play it over a diminished 7th chord
- You can play it over any dominant 7th chord in a V to I movement

Check out some facts::

- The chord spelling for a diminished 7th chord is: 1 b3 b5 bb7
- Each note is separated by a minor third interval
- Therefore making it the most symmetrical chord of all!
- Each diminished 7th chord has four possible root notes, all of which lead to the same chord type (diminished 7th)
- Regarding fingerboard instrument, any transposeable shape for the diminished 7th chord can be moved 3 semitones (frets) up or down to create an inversion of the same chord type with the same four notes.
- There are only three distinct diminished 7th chords: for the sake of argument, they are as follows:

Co7: C Eb Gb Bbb (A): is the same as Ebo7, Gb(F#)o7 and Ao7 C#(Db)o7: C#(Db) E G Bb: is the same as Eo7, Go7 and Bbo7 Do7: D F Ab(G#) Cb(B): is the same as Fo7, Ab(G#)o7 and Cb(B)o7

- The Diminished 7th chord is a very useful chord to use in changing keys during the course of a piece of music – because it any given diminished 7th chord occupies four keys at the same time
- The Diminished 7th chord is naturally built upon the VII note of

- the harmonic minor scale.
- It is often used as a passing chord or as a substitute for a Dominant 7th; especially in the role of a secondary dominant chord

From the point of view of what is being discussed here, one of the most important facts is that **it is a substitute chord for a dominant 7**th. Here's why:

1 3 5 b7

Take for example, G7: it has the notes: G B D F

Quite often, certainly in Jazz, a flat 9th note is added to this to create an altered chord with a little bit more pizazz:

Now, it just so happens that the notes B D F Ab have another name: Bo7

Therefore, it is possible to use a Bo7 in place of G7 in any chord progression. Bo7 can also be called Do7, Fo7 and Abo7 for reasons given earlier.

In regard to improvising a lead solo, when presented with a dominant 7th chord to improvise over, it is therefore possible to use a diminished 7th arpeggio as the basis for a line.

Exercise: learn arpeggio patterns for the diminished 7th. Note that transposable patterns (those without open strings) can be moved up or down 3 frets to play the same arpeggio.