



Valencia

# **The Soundtrack of Interstellar (2014)**

*Observing Faith and Science through one lens*

Under the mentorship of Alfons Conde, and Sergio Jimenez Lacima

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## **A Personal Overview**

Despite being in awe of this masterpiece of a film by Christopher Nolan, I cannot recall to mind the first time that I had watched *Interstellar*. All I remember is that I was not particularly excited as everybody was, at the time, for, being familiar with the styles of both Hans Zimmer and Nolan, I had an inkling of what it was all going to be like – an epic science fiction film, with epic music, a non-linear storyline, the usual visual depiction of Time's significance, the predictable tick-tock sounds, and so on and so forth. Well, I turned out to be right – and yet, I turned out to be wrong.

Yes, *Interstellar* was meant to be depicted on an epic scale, but when it comes down to it, we realize that the core of the story was of a father trying to get back to his child. Yes again, the film had epic music, but this time, it was never going to be all about the heavy usage of the low percussion hits and horns, which had become so synonymous with Zimmer's style. Instead, the principal instrument used throughout the soundtrack was a pipe organ. A pipe organ. And for a science fiction film. My curiosity was aroused. And when I finally watched the film, and let the feeling of it sink in, I came to realize that the concept of time was being used in order to explain what love can make a person to be capable of, and the concept of the existence of a Higher Dimension (or God). That the music rose to the occasion in order to depict every one of these afore-mentioned concepts in such stunning fashion is supremely laudable. *Interstellar* is one such film that, no matter how many times you get to watch it, you never tire of it. The soundtrack, apart from the story and direction, is one of the primary reasons for that. I do thank Sergio for having encouraged me to

make an intensive study of this film's soundtrack for my thesis, and I hope to do it justice on every count.

## **A Brief Summary of the Plot**

Sometime in the 21<sup>st</sup> century, with earth's condition rapidly deteriorating on account of crop blights, a NASA team decides to travel to other potentially habitable worlds. Cooper (played by Mathew McConaughey) is part of the team as a pilot, and who leaves behind his daughter and son, who are aware of the possibility he might never return. Nevertheless, Cooper promises to return.

The NASA team is able to travel to different worlds – through a wormhole near Saturn that acts as a pathway to a distant galaxy. However, time is severely dilated on the planets that they eventually reach – for every hour equals seven years back on Earth. After a mission gone wrong, twenty-three years have elapsed on Earth.

Back on earth, Cooper's daughter, Murph (played by Jessica Chastain), now grown up, takes it upon herself to find a solution to save the people on Earth (which is further deteriorating), a case that her mentor had considered hopeless. Murph eventually realizes that the dust patterns in her room, which she, as a child, had taken to be poltergeist activity, was, in fact, her father, trying to communicate with her from where he was – in a tesseract, after having slipped past an event horizon after certain events. Using the data communicated, Murph is able to solve the gravitational equation for propulsion that would allow a mass exodus of people from Earth. Cooper eventually reunites with his daughter, now elderly and near death.

Several human elements, such as treachery, deceit, doubt, and hope, are succinctly expressed in this tale that so drastically points out to our own lack of understanding of God, and of our lack of belief that faith in oneself can indeed move mountains.



## THE SOUNDTRACK

### a. The Main Theme

It would not be an exaggeration to state that both critics, as well as the laity, have been equally astounded at the use of the pipe-organ in the soundtrack. I, for one, would go so far as to claim that the soundtrack happens to contain the most powerful reverb-tail ever heard - The precise spot being after the organ crescendo at 2:48, in the theme, titled “Stay” - [https://www.youtube.com/watch?v=ca\\_Cv7seV4Y](https://www.youtube.com/watch?v=ca_Cv7seV4Y).

*“...it’s not like you can go from pp to ff within a note and back again. You can’t go to silence or come from silence, which is what I wanted to do. What I did at the end of the day, after we’d recorded all the organ parts—the writing is pretty intricate, so on a big cue we might have 12 or more different ones—was to take the audio tracks back in the sequencer and superimpose expression maps onto them.”* (Hans Zimmer, in an interview with Stephen Fortner)

It is, by now, a well-known fact that the seed was sown, when in mid-October 2012, Nolan sent Zimmer a typewritten note that detailed the theme, asking Zimmer to spend a day writing some musical ideas.

*“I am going to give you an envelope with a letter in it. One page. It's going to tell you the fable at the center of the story. You work for one day, then play me what you have written.”* (Nolan, on the composition process with Zimmer)

In one night, Zimmer had written a four-minute piece with piano and organ – this very theme: (Excerpt below; Full transcription included)

Transcribed by Cecil V A Hans Zimmer



Organ

The image shows a musical score for organ. It consists of two staves. The top staff is in treble clef and the bottom staff is in bass clef. The time signature is 3/4. The top staff contains a melody of quarter notes with rests, while the bottom staff contains a piano accompaniment of eighth notes. The score is labeled 'Organ' on the left and 'Transcribed by Cecil V A' and 'Hans Zimmer' at the top.

In Zimmer’s words, the composed piece “asserted feelings of what it meant to be a father”, with Nolan describing it as the heart of the story. Indeed, one could guess correctly that Nolan wanted Zimmer to relate to his story on a personal level – and he was certainly successful on this count, as Zimmer himself recounts – “This story, this fable, these bits of dialogue he wrote for me were full of personal information that he has about myself and my children.”

## **b. The Pre-production stage onwards**

Before *Interstellar*, the working process between Nolan and Zimmer was that, usually, by the time Nolan was shooting a scene, Zimmer was ready with the score for that particular scene. *Interstellar* was an exception. It took two years for Zimmer to conceptualize and compose the score, in parallel with the scripting and shooting of the film, with most of the recording being done in the late spring of 2014. For the overall score, Zimmer added an ensemble of 34 strings, 24 woodwinds, and 4 pianos, and recorded it at AIR's Lyndhurst Hall studios. Central to the soundtrack was, of course, the 1926 four-manual Harrison & Harrison organ played by Roger Sayer, the music director of Temple Church, London.

*"... one day Chris, in the middle of a paragraph, goes, "Have you ever thought of a pipe organ?" As soon as he said it, I just saw the shape. Those big organ pipes look like the afterburners on rocket ship. So visually, that seemed to fit right into the image that I was trying to create. For me, it's vital that the score involves some sort of metaphor for the story. The other part of that metaphor is that a pipe organ can't make a sound without breath. In that regard, it's incredibly human.*

*Another thing is that we wanted to celebrate scientists in the film as opposed to them being the nerdy sidekicks—a bit like having the keyboard player at the center of the stage as opposed to back behind the guitarist or singer! And by the 17th century, the pipe organ was the most complex machine people had created. It kept that distinction until the telephone exchange was invented—and you can't tell me Bob Moog didn't see a telephone exchange at some point before thinking of the modular synth."* (Hans Zimmer, on the idea to make a pipe organ so central to the score.)

Zimmer himself played the solo piano for the scenes in the film near Saturn

(<https://www.youtube.com/watch?v=ITwYEIY2FIE>). Most captivating has been his

addition of a 60-voice mixed choir, which, as we now know, had been used in ways that are traditionally unusual: for example, “to hear the exhalation of 60 people as if the wind flows through the dunes in the Sahara.” As per Zimmer, the concept of air and breath resonates throughout the score, since the film revolves much with astronauts in spacesuits. With that taken into consideration, Zimmer thus made the choir face away from the microphones, using them as reverb for the pianos ([https://www.youtube.com/watch?v=V\\_dJOnBhWLS](https://www.youtube.com/watch?v=V_dJOnBhWLS)). As Zimmer explained, “The further we get away from Earth in the movie, the more the sound is generated by humans – but an alienation of human sounds. Like the video messages in the movie, they’re a little more corroded, a little more abstract.”

And this certainly did have a powerful impact on those watching this film.

Richard Harvey, with Gavin Greenaway, conducted the score. Zimmer told them to assemble a group of top woodwind players, then asked the musicians to play strange and unusual sounds with their instruments. The success of this experiment bolstered them to go a step further and experiment with choral elements as well.

### **c. The Prominence of Reverb-tails**

Unedited reverb tails were given complete prominence. Nolan was very mindful that if a note finished, the reverb wouldn’t be cut off, or faded down. It was his desire that the shot hang there long enough for one to hear the end of the decay. I am of the

opinion that this humble idea has a lot of meaning to it. By doing so, they intended to show that the transition between the scenes be intertwined, since they are all meant to convey the same message – no matter the fluctuations between the emotional aspect, and the science fiction part – the point is driven home perfectly. The point of focus - the journey underwent by a father to get back to his child. The reverb tails did help the viewer to connect the dots from scene to scene, thereby taking the viewer to the heart of the story.

However, there are exceptions. One is where Cooper is on the spaceship watching a video from his family. When the video ends, the seemingly-swelling cue cuts abruptly to silence. Jarring. Yet it conveys the loneliness.

*“Yes, that cutoff was actually quite important. You think it’s a piece of score, but it’s actually a piece of source music. Chris was describing the scene to me, all the frames I had to hit . . . and in the end that hit every frame. We play with silence a lot in this film, obviously. Sometimes, these days a score is just wall-to-wall. So it’s weird that we got that controversy about the loudness on this score, which isn’t wall to wall. There are large chunks of this movie where people just talk without music in the background.”*

This leads, eventually, to the loudness issue that some viewers had experienced – not being able to understand the dialogue. Zimmer admits to wanting to be extreme, in the terms that they wanted it to be “both the quietest movie and the loudest movie”. This, in addition to an operatic feel that was lent to the soundtrack, and subsequently to the movie. As Zimmer states:

*“...as a little kid, my mom used to take me to the opera—my first musical experiences were largely opera. I never understood a word, but I was always ended up crying or otherwise being swept along by*

*the emotional experience. Musicians know this. There are so many great songs where we're still not entirely sure what the lyrics are, but they get under our skin. Another thing to remember is that Chris Nolan isn't just the director, he's the writer. He's very aware of words, and he does treat a film like a song—sometimes the words are more important, sometimes the music is.”*

#### **d. The Sound Design**

The relatively underrated sound design of the film has silently played a huge role in shaping up *Interstellar* to what we now have watched. Experimentation with Foley techniques had been conducted extensively. That the sound design worked so well for the film lies partly in the fact that the film's core team had the opportunity to avail the services of a musician cum inventor from Los Angeles called Chas Smith.

*“There's a wonderful inventor and musician here in Los Angeles called Chas Smith. He creates these amazing musical sculptures out of titanium and other metal. He's forever up at the Boeing factory getting scraps of weird, unpronounceable metals, and he builds these musical instruments out of them. They're either scraped or scratched or bowed, or whatever other unspeakable things he does to them. [Laughs.]”*

Also, Zimmer states that what they desired to do with *Interstellar* was to rather “imitate synthesizers with acoustic instruments”, rather than the other way round. Which, in my opinion, is one reason as to why Zimmer's touch was evident despite the lack of electronics, which has been his signature style. However, Zimmer did use the Zebra, and the Jonte Knifonium, a vacuum tube-based synthesizer, and a Finnish creation.

*‘In the '70s or '80s, everybody was forever saying that synthesizers are trying to imitate and maybe replace real instruments. Well, what we were trying to do with *Interstellar* is imitate synthesizers with*

*acoustic instruments. We'd play things to the orchestra and say, "Here's an overtly electronic sound. How would you go and do that? There must be something about your instrument that no one ever let you do or that only you know. Let's hear it!" I remember Richard Harvey, who was conducting the woodwinds, saying, "They've spent their whole lives not sounding like this." That felt like a triumph.'*

#### **d. The Themes in the Soundtrack**

In effect, though the soundtrack comprises of 22 instrumental tracks, they all are built upon three simple themes, and these 22 instrumental tracks may be considered as variations of those three themes, with alterations observed in terms of noisescapes, or arpeggio-patterns. The main theme (the one which Zimmer wrote, upon receiving the type-written note from Nolan – transcription excerpt seen above) is one, listed as “Cornfield Chase”, or “S.T.A.Y.” in the soundtrack. The second one is this very beautiful melody as transcribed below: (Excerpt)

**Interstellar Soundtrack - 05. Stay**

Transcribed by Cecil V A Hans Zimmer

This simple melody starts off with a pattern of noisescapes, without the bassline. The first time, only the organ plays the top notes in the treble clef, and then at the clang of a church bell, the bassline comes into play. At which point, the organ which is still playing the very same melody is accompanied by choral elements, and eventually the strings, and for the third repeat, which is the final exposition, we hear the horns full throttle, with string ostinatos lending full support. And, during the course of the film, it is the second and third repeats that we hear more often, and this theme is titled “Stay”. We ought to note that the soundtrack lists “Stay” and “S.T.A.Y.” which are completely different themes to each other.

The third theme is the one where we see percussion elements making a rare yet crucial appearance, signifying urgency in the aptly titled “No Time for Caution”,



which, in the film, is played when Cooper attempts to dock the spacecraft. An excerpt of which is provided below:

The image displays a musical score excerpt for the film *Interstellar*. The score is arranged in a system with five main staves. The first staff is for the Organ (Org.), featuring a treble clef with a melodic line and a bass clef with a rhythmic accompaniment of eighth notes. The second staff is also for the Organ (Org.), but it is mostly empty, with only a few notes in the bass clef. The third staff is for the Piano (Pno.), showing a treble clef with a melodic line and a bass clef with a rhythmic accompaniment of eighth notes. The fourth staff is for the Piano (Pno.), which is mostly empty. The fifth staff is for the Woodwind (Wd. Bl.), featuring a treble clef with a melodic line and a bass clef with a rhythmic accompaniment of eighth notes. The sixth staff is for the Violin (Vln.), featuring a treble clef with a melodic line and a bass clef with a rhythmic accompaniment of eighth notes. The seventh staff is for the Double Bass (Db.), which is mostly empty. The score is marked with a tempo of 60 and includes dynamic markings such as *mf* and *ff*.

One particular comment that I came across online was that this particular music was the “least ‘Zimmer’ of the scores he’s done for Nolan”. I could not agree more. In this

particular cue, we see that Zimmer has implemented the “passacaglia” form, a Baroque form based on a repeating melody in the bassline (which we hear from 0:45 onwards, leaping from one instrument to another), building ever up as the tension builds.

The fourth theme is, in fact, the theme based on Nolan’s philosophy regarding time. And it is this piece that we hear the clicking of the clock – which by now seems to have become a sort of signature style in Nolan’s films (observed even in his upcoming ‘Dunkirk’). An excerpt of this cue is provided below as well.

$\text{♩} = 96$  slowly progressing and rising in tempo

Soprano

Mezzo-soprano

Alto

Tenor

Baritone

Bass

Piano

Piano

Hand Clap

Drumset

Timpani

*ppp*

*ppp*

*pp*

*pp*

*p*

*pp*

Fade in

The interesting part of this piece, in my opinion, is the way the tempo has been implemented in order to depict the concept of time dilation – (i.e. one hour on Miller’s Planet equals seven years on Earth). The piece starts off with the tick-tock (at a quarter note’s speed of 96bpm), which then begins to accelerate from bar 40, eventually settling at 120bpm, indicating how time is rapidly flying away back on Earth, as compared to on Miller’s planet, as well as the mounting urgency in Cooper’s

need to fly home to his family back on Earth who have now grown up, now years without having seen their father. Also interesting is the use of the choir in this piece, which, as mentioned before, has been used as the reverb tail for several instruments (the organ and piano in particular). Zimmer states that he intended to use the choir so as to enhance the alienation between the protagonist and his world. The further he moves away from Earth, the more alienated the human voices become, Zimmer implies. This out-of-the-box method of using choral elements has worked like a dream, as we all have now seen.

**Cue list and Placement:**

<b>NAME OF THE CUE</b>	<b>MX_IN</b>	<b>MX_OUT</b>	<b>SCENE DEPICTED</b>
Dreaming of the Crash	00:00:16	00:03:34	Reminiscing about life back on earth, and of Cooper's crash.
Cornfield Chase	00:05:48	00:07:47	A father's unique way of consoling his daughter
Day One	00:08:06	00:09:38	The drone having sparked Murph's passion for science
Dust	00:13:41	00:15:26	The after-effects of blight, and the strange happenings in Murph's room
	00:18:21	00:21:48	The dust-storm, and the realization of the truth behind the dust patterns
Day One	00:21:49	00:24:32	Murph & Cooper setting out to find the location of the

			co-ordinates
Dust	00:24:33	00:25:03	Cooper & Murph taken in by TARS
Day One	00:28:08	00:33:54	Brand convincing Cooper to spearhead the mission
	00:33:55	00:35:19	The frozen embryos – Plan B
Stay	00:37:04	00:42:19	Murph pleading with her father to stay – Cooper’s farewell
The Wormhole	00:44:54	00:46:09	Locking the spacecraft for the first time
Dust	00:46:26	00:48:54	Initiating spin – and glimpses of earth from the outer space
The Wormhole	00:49:32	00:50:22	<i>Do not go gentle into that good night</i>
	00:53:16	00:54:00	Cooper communicating with his family

Message from Home	00:54:50	00:56:14	Messages from family to Cooper
Dreaming of the Crash	00:56:50	00:57:11	Romily & Cooper
The Wormhole	00:58:58	01:00:16	Into the wormhole
	01:00:50	01:01:24	Distorting space-time; and “them”
Dust	01:01:47	01:02:19	Beyond
	01:06:17	01:08:32	Foray into Miller’s planet
Mountains	01:08:33	01:11:57	Water all around; Wreckage; “Mountains” which are actually waves, & Doyle’s death
Cornfield Chase – Organ Variation	01:17:26	01:21:30	Unread messages for the past 23 years – from a grown-up Tom
	01:21:39	01:22:34	...& from a grown-up Murph
Afraid of Time	01:22:48	01:25:10	Murph & Brand – <i>I’m afraid of time, not death</i>

	01:29:10	01:30:44	Murph & Tom, with Tom's family
	01:31:27	01:34:32	Brand's last moments – <i>I lied to you, Murph</i> ; “This was all a sham”
	01:34:33	01:35:54	To Mann's planet
Cocktail of all that's played	01:36:56	01:40:47	Mann wakes up; Mann's planet
	01:41:05	01:44:23	Brand's deception
Running Out	01:44:24	01:46:15	Murph refuses to give up
Dust	01:46:34	01:52:04	Parallel ongoings between Earth and Mann's planet
Coward	01:52:05	02:00:27	..& Mann's betrayal – Romilly's death
Imperfect Lock	02:00:40	02:07:23	Mann attempts to take control - & is killed
No Time for Caution	02:07:29	02:11:25	Cooper attempts to dock – with epic success



....+ Stay + Dust...	02:11:47	02:18:18	Cooper's sacrifice
	02:19:34	02:20:03	Detached
	02:20:26	02:21:01	Into the tesseract
Medley	02:21:13	02:35:10	Father & daughter communicating beyond space-time
Stay / Cornfield Chase – Organ Variation	02:36:32	02:44:00	Father & daughter reunite

## Critical Response

- "Hans Zimmer's music makes the film seem even more colossal than it would otherwise: Zimmer invokes the original meaning of 'pulls out all the stops', rattling our teeth with reverberating pipe-organ chords." (Nicholas Barber, BBC)
- "Throughout, Hans Zimmer's music throbs obtrusively, occasionally fighting with the dialogue for our attention." (Liam Lacey, The Globe and Mail)
- "Hans Zimmer has created a close to perfect musical canvas for those extremely dedicated to the audio experience. The compositional technique on the album may turn off a few, as it is different than Zimmer's recent offerings. However, for those that stick with the album, they will see it 'not go gentle into that good night.' Zimmer's Interstellar rages!" (Steven Biscotti, soundtrack.net)
- "Hans Zimmer contributes one of his most richly imagined and inventive scores, which ranges from a gentle electronic keyboard melody to brassy, Strauss-ian crescendos." (Scott Foundas, Variety)

**Accolades won:**

1. **Saturn Awards** – Best Music
2. **Dallas-Fort Worth Film Critics Associaton** – Best Original Score

**Nominations:**

1. Academy Awards – Best Original Score
2. British Academy Film Awards – Best Original Music
3. Chicago Film Critics Association – Best Original Score
4. Critics' Choice Movie Award – Best Score
5. Florida Film Critics Circl – Best Score
6. Golden Globe Awards – Best Original Score
7. Houston Film Critics Society – Best Original Score
8. International Online Film Critics' Poll – Best Original Score
9. Satellite Awards – Best Original Score
10. St. Louis Gateway Film Critics Association – Best Music Score
11. Washington D.C. Area Film Critics Association – Best Original Score

**And Yet...**

*“Hans Zimmer may very well be the Leonardo Di Caprio of the music industry.”*

(quora.com)

Despite the universal and critical acclaim from every quarter, and despite being nominated for nearly every major award there is, *Interstellar* still lost out to *The Grand Budapest Hotel* (soundtrack composed by Alexandre Desplat) at the big stage - the Academy Award for the Best Original Score. My understanding is for this is that perhaps the results of the past are taken into consideration as well. For, Desplat is one such composer who has carved out soundtrack after soundtrack, each unique than the previous. He is a rare breed of contemporary film composer who has managed to carve out a uniquely distinctive voice of his own, whilst also ensuring that said voice is incredibly adaptable to a variety of contexts from dramatic to heroic to whimsical. Just like Zimmer. However, in Zimmer's case, one must admit that the melodic structures that one hears in his music has a remarkable signature touch about him, so much so that even though *Interstellar's* score is a different approach from Zimmer, we still see him trying to adapt to the story in his own way (which, of course, is synonymous with that of Nolan's - one reason they make such a terrific combination). Plenty of arguments could be made in order to make a case for Zimmer having deserved an Academy Award for *Interstellar*. But there is one point no one can deny - a soundtrack that causes people to question their selves is above any award.

**References:**

[https://en.wikipedia.org/wiki/Interstellar\\_\(soundtrack\)](https://en.wikipedia.org/wiki/Interstellar_(soundtrack))

<http://www.keyboardmag.com/artists/1236/hans-zimmer-on-scoring-interstellar/51122>

<https://www.youtube.com/watch?v=ye6ydvFQhRw> (SFX and Mixing)

[https://www.youtube.com/watch?v=L\\_8t2V1wK4w](https://www.youtube.com/watch?v=L_8t2V1wK4w) (Making of Interstellar Soundtrack)

<https://www.youtube.com/watch?v=g17RWwSBZ5U> (Chas Smith)

<https://www.youtube.com/watch?v=e40uAYm5cxE> (Extended Interstellar Featurette)

[https://en.wikipedia.org/wiki/List\\_of\\_accolades\\_received\\_by\\_Interstellar](https://en.wikipedia.org/wiki/List_of_accolades_received_by_Interstellar)

**Musical Personnel**

[https://en.wikipedia.org/wiki/Interstellar\\_\(soundtrack\)#Personnel\\_credits](https://en.wikipedia.org/wiki/Interstellar_(soundtrack)#Personnel_credits)

