

# Message to lurking alien civilizations

---

**João Pedro de Magalhães**

Institute of Ageing and Chronic Disease, University of  
Liverpool, UK

October 21, 2018

*TransVision*

Madrid, Spain



# Integrative Genomics of Ageing Group

*João Pedro de Magalhães*

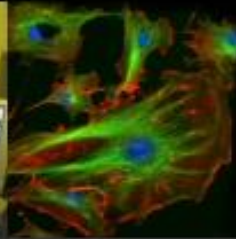


Research

Resources



Publications



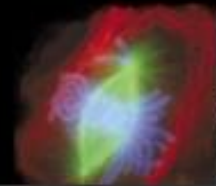
People



Vacancies



Links



Contact



## Research combining experimental and computational methods

Systems Biology of Ageing  
Dietary Manipulations of Ageing  
Cellular Models and Stem Cells  
Genomics of Complex Diseases

...



UNIVERSITY OF  
LIVERPOOL

<http://pcwww.liv.ac.uk/~aging/>

# Long-term interest in astrophysics, astrobiology and SETI



# Fermi's Paradox

---

The Milky Way: >100 billion stars and is  
>13 billion years old

Our Solar System is 4.5 billion years old

It is unlikely that life (inc. intelligence)  
has not emerged anywhere else



# Fermi's Paradox

---

An extraterrestrial civilizations could cross the galaxy in <100 million years

There are no signs of extraterrestrial intelligences

Known as Fermi's Paradox

Many possible explanations...





# SETI

---

Search for extraterrestrial intelligence or SETI

Based on the premise that extraterrestrial intelligences exist

Why have they not reached us? Technical limitations or sociological reasons?



# The Zoo Hypothesis

---

One or more extraterrestrial civilizations can reach us  
but have chosen not to

ICARUS **19**, 347–349 (1973)

## **The Zoo Hypothesis**

JOHN A. BALL

*Oak Hill Road, Harvard, Massachusetts 01451*

Received March 1, 1973; revised March 5, 1973

Extraterrestrial intelligent life may be almost ubiquitous. The apparent failure of such life to interact with us may be understood in terms of the hypothesis that they have set us aside as part of a wilderness area or zoo.

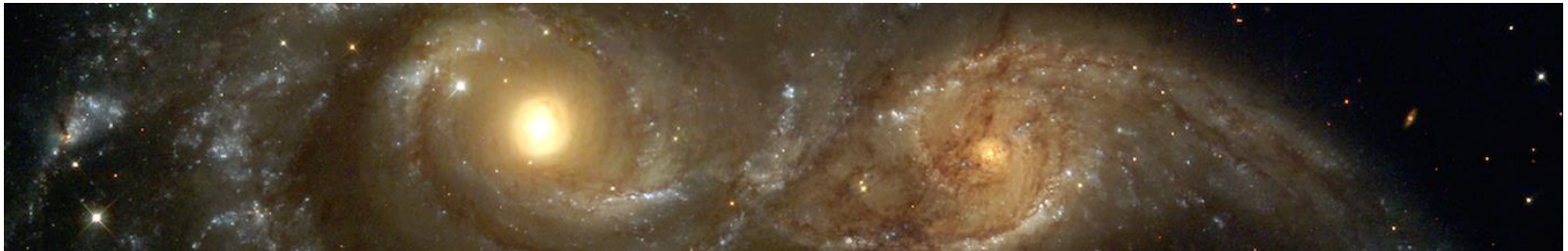
# Active SETI

---

Active SETI is the attempt to send messages to extraterrestrial civilizations

Interstellar messages could reveal our location to potentially hostile extraterrestrial civilizations

Extremely controversial





# Active SETI and the Zoo Hypothesis

---

Could lurking “zookeepers” be waiting for us to initiate contact?

Discussed since the 1970’s

Invitation to ETI website (<http://ietl.org/>) led by the late Allen Tough

# A proposal to test the Zoo Hypothesis

---

My proposal is to send a message to any extraterrestrial intelligence(s) that might already be observing us and inviting them to respond



# How?

---

Our radio leakage is readily detectable at long distances (i.e., from outside the solar system)

Lurking “zookeepers” would be eavesdropping on our radio and television leakage

I propose to use existing radio and television broadcasting to send our invitation

Transmit from multiple stations and as many different frequencies as possible

# Dangers?

---

Extraterrestrial intelligences could pose intentional and unintentional risks

If extraterrestrial intelligences can reach our solar system they have likely chosen not to destroy us yet



# Drafting an invitation message

---

I believe the invitation message should:

- 1) Acknowledge the Zoo Hypothesis and express our wish to communicate with extraterrestrial intelligences
- 2) Our civilization is in more danger than ever we would like to learn from older civilizations
- 3) Suggest an easy way for extraterrestrial civilizations to respond to us

*Suggestions welcomed!*

# Establishing contact and communicating

---

Extraterrestrial intelligences should respond to us by using frequencies used to transmit the invitation message (or using whatever method they see fit)

If extraterrestrial intelligences respond to our invitation, follow SETI reply protocol, etc.



# Chances of success?

---

As low as winning the lottery (but that hasn't stopped people from buying lottery tickets)

Establishing contact with extraterrestrial intelligences would forever change humanity



# Long-term prospects

---

How to deal with null results? Regular Active SETI transmissions?

Adequate recordkeeping of transmissions

If the Zoo Hypothesis is correct but extraterrestrial intelligences do not respond to an explicit request for assistance, this may influence future diplomatic relations

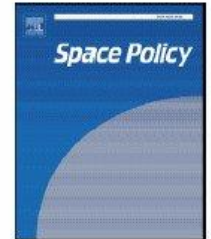


ELSEVIER

Contents lists available at ScienceDirect

Space Policy

journal homepage: [www.elsevier.com/locate/spacepol](http://www.elsevier.com/locate/spacepol)



Viewpoint

A direct communication proposal to test the Zoo Hypothesis

João Pedro de Magalhães



URL: <http://active-seti.info/>



# Conclusions

---

The possibility that extraterrestrial civilizations are monitoring us cannot be dismissed

I propose sending a message using radio and television stations to any lurking extraterrestrial civilization

Broadcasting an explicit invitation message may improve the odds of extraterrestrial intelligences communicating with us and will not increase our risks

Communicating with more advanced extraterrestrial civilizations would forever change humankind

# Acknowledgements

---



<http://active-seti.info/>

[contact@active-seti.info](mailto:contact@active-seti.info)

## **Useful discussions**

William Baines

Duncan Forgan

Anders Sandberg

Paolo Musso

...

