

Analyzing the Bitcoin Ponzi Scheme Ecosystem

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There's No Free Lunch, Even Using Bitcoin: Tracking the Popularity and Profits of Virtual Currency Scams

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Abstract. We present the first empirical analysis of Bitcoin-based scams: operations established with fraudulent intent. By amalgamating reports gathered by voluntary vigilantes and tracked in online forums, we identify 192 scams and categorize them into four groups: Ponzi schemes, mining scams, scam wallets and fraudulent exchanges. In 21% of the cases, we also found the associated Bitcoin addresses, which enables us to track payments into and out of the scams. We find that at least \$11 million has been contributed to the scams from 13 000 distinct victims. Furthermore, we present evidence that the most successful scams depend on large contributions from a very small number of victims. Finally, we discuss ways in which the scams could be countered.

1 Introduction

An effective, though unfortunate, way to determine that a new technological platform has “arrived” is by observing the presence of scammers leeching off those using the system. Shortly after the advent of the telegraph, sneaky punters began placing bets on recently-completed horse races at faraway bookmakers who had not yet observed the result [1]. Once telephones became pervasive, unsolicited calls by scammers became problematic. No sooner had email become popular, then a flood of messages promising riches from Nigerian princes began filling people's inboxes.



Badbitcoin.org - Home

Bitcoin (BTC) & Litecoin (LTC)
Fake Mining, Scams and Badsites. Since 20

[The Badlist](#) [Safe Sites](#) [Safety Tips](#) [Report a Scam](#) [Verify your Site](#)

START BITCOIN MINING NOW!

Click for a Live Stream of Our Mining Farms

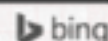
WE ACCEPT

Bitcoin VISA MasterCard

Genesis Mining

Longstanding, reliable, Bitcoin and altcoin Contract Mining

TRANSLATE



Latest Alert



Bitcoin-generator-x.bid

The same lame scam that you will see on many domains. If you believe there is any truth to these kinds of scam, you will soon part company with your Bitcoin. Don't say you weren't warned. 3/2/18



Bitpow.io

The Badbitcoin Project


Exposing bitcoin and cryptocurrency frauds since Feb 2014

If you have never read it, then a great place to begin your bitcoin adventure is by reading the very original [White Paper](#), from Satoshi Nakamoto. This explains the concept of bitcoin, and why so work so hard to progress this disruptive technology.

When you understand the potential of bitcoin, you will also understand why so many people wait it from you. The future value is much debated, but with consensus saying that it has a very long before becoming any kind of bubble.

Bitcoin is not a ponzi, and is not a scam. It's value is derived from it's raw cost of production, a value as a functioning token of trade, and store of value. The blockchain is supported by the tra

Bitcoin Forum

 simple machines forum

January 23, 2015, 06:34:56 PM

Welcome, **Guest**. Please [login](#) or [register](#).

Forever

Login with username, password and session length

News: ♦♦ [Users of Bitcoin Core on Linux must not upgrade to the latest OpenSSL. More info.](#)

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Bitcoin Forum > Economy > Marketplace > Gambling > Games and rounds > **[SCAM] Leancy Ltd - Bitcoin Investment - 150% Return & 5% Daily Interest**

[« previous topic](#) [next topic »](#)

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Author

LeancyBTC

Member

Activity: 70

Ignore

Topic: [SCAM] Leancy Ltd - Bitcoin Investment - 150% Return & 5% Daily Interest (Read 24310 times)

[SCAM] Leancy Ltd - Bitcoin Investment - 150% Return & 5% Daily Interest

February 04, 2014, 07:28:40 AM

#1

**LEANCY HAS NOT BEEN PAYING SINCE 03/11/14. NO ADMINS COULD BE REACHED.
DO NOT DEPOSIT ANY FUNDS INTO LEANCY.**

FortuneJack.com
No.1 Online Cryptocurrency Casino

LeancyBTC

Member

Activity: 70

Ignore

Re: Leancy Ltd - Invest w/ Bitcoins 150% Yields

February 04, 2014, 09:48:58 AM

PORTALS

Facebook Group (Leancy Investors) - A place (free of spam) for honest discussions regarding Leancy and other HYIPs and it's illegal operations as well as news and updates regarding any information on those behind the scams.
Skype Room - Unfortunately, bitcointalk isn't displaying the link properly so if you want to join, you'll have to add the Skype user: **leancybtc** and include in the request message you're from bitcointalk. This chat room has the same intent as the FB group above.

Mivexil

Member

Activity: 98

Ignore

Re: Leancy Ltd - Invest w/ Bitcoins 150% Yields

February 04, 2014, 12:40:06 PM

Quote from: LeancyBTC on February 04, 2014, 09:48:58 AM

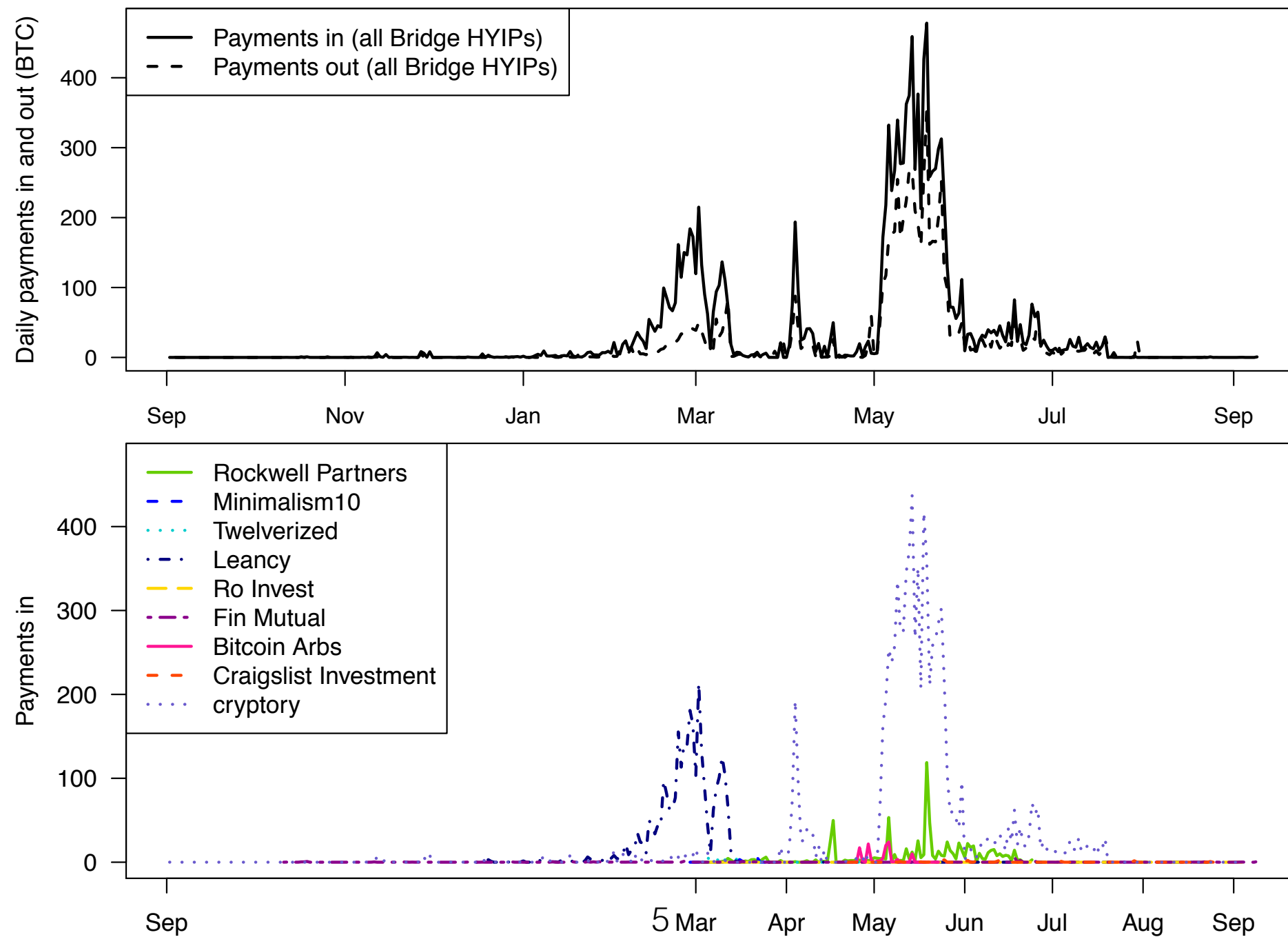
Food for thought - The average accrued earnings from my investment portfolio is \$212 per day. If I were to convert that to mining, it would require a 1.15TH/s mining power to accumulate the same return at today's current difficulty. However, compared to mining; I'm not weighed down by the cost of electricity and the time required to break even on the hardware investment.

You are, however, weighed down by the risk that this site can one day shut its doors and go to the Bahamas. And the question, as it's the case with all HYIPs, isn't "if" but "when".

I just hope it won't happen this month.

Profits of Ponzis

Daily payments into and out of Bridge HYIPs



2015 Paper: Conclusions

- Developed manually intensive methodology for measuring profits of Bitcoin scams
- Found \$11 million revenue over 42 scams
- Indirect harm from scams — undermine trust in the Bitcoin ecosystem

Measuring the Supply and Demand for Bitcoin Scams



Author

Topic: GET 100X BITCOIN INVESTMENT IN 24 HOURS (Read 7402 times)

manojbashu

Newbie



Activity: 1



GET 100X BITCOIN INVESTMENT IN 24 HOURS

March 30, 2015, 04:15:31 PM

GET 100X BITCOIN INVESTMENT IN 24 HOURS

<http://bitcoin-profit.site.bz>



tech-tools

Newbie



Activity: 1



Re: GET 100X BITCOIN INVESTMENT IN 24 HOURS

November 19, 2015, 05:25:43 AM

I did sent 0.2 and I got nothing back!!!

Status: 171 confirmations

Date: 11/17/15 20:52

To: 100x 19BtphFr6kWqYyqoAmSv5d2TZ4uwH56dCd

Debit: -0.20000000 BTC

Transaction fee: -0.00004070 BTC

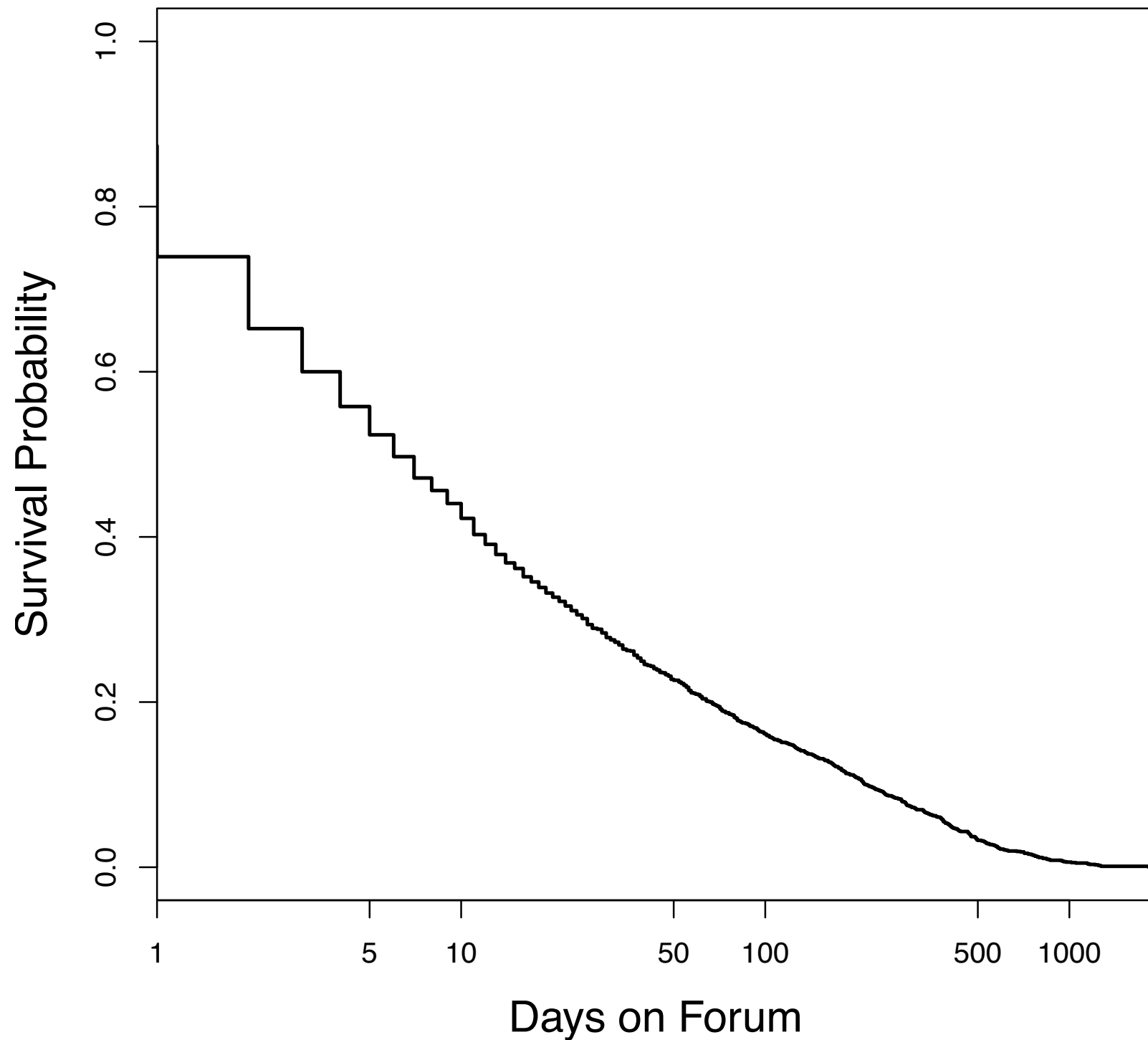
Net amount: -0.20004070 BTC



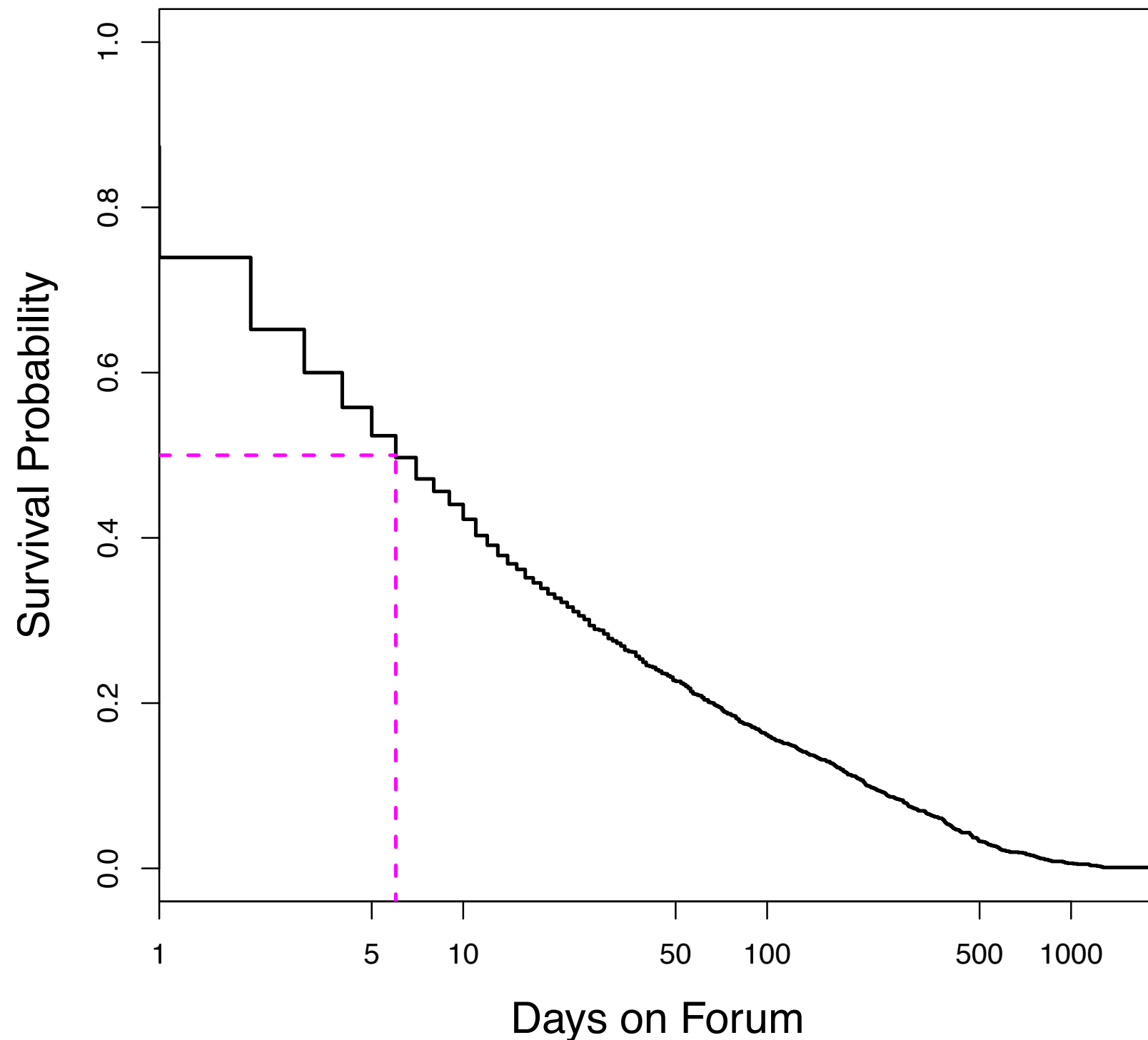
Data Collection Methodology

- Crawled 11,424 threads on the three subforums of bitcointalk.org:
 - Scam accusations
 - Gambling: Games and Rounds
 - Gambling: Investment Games
- Refined this further to find 1,780 scams advertised through 1,804 ponzi-registered domains as well as 1,448 Bitcoin addresses collated from 2,617 threads.

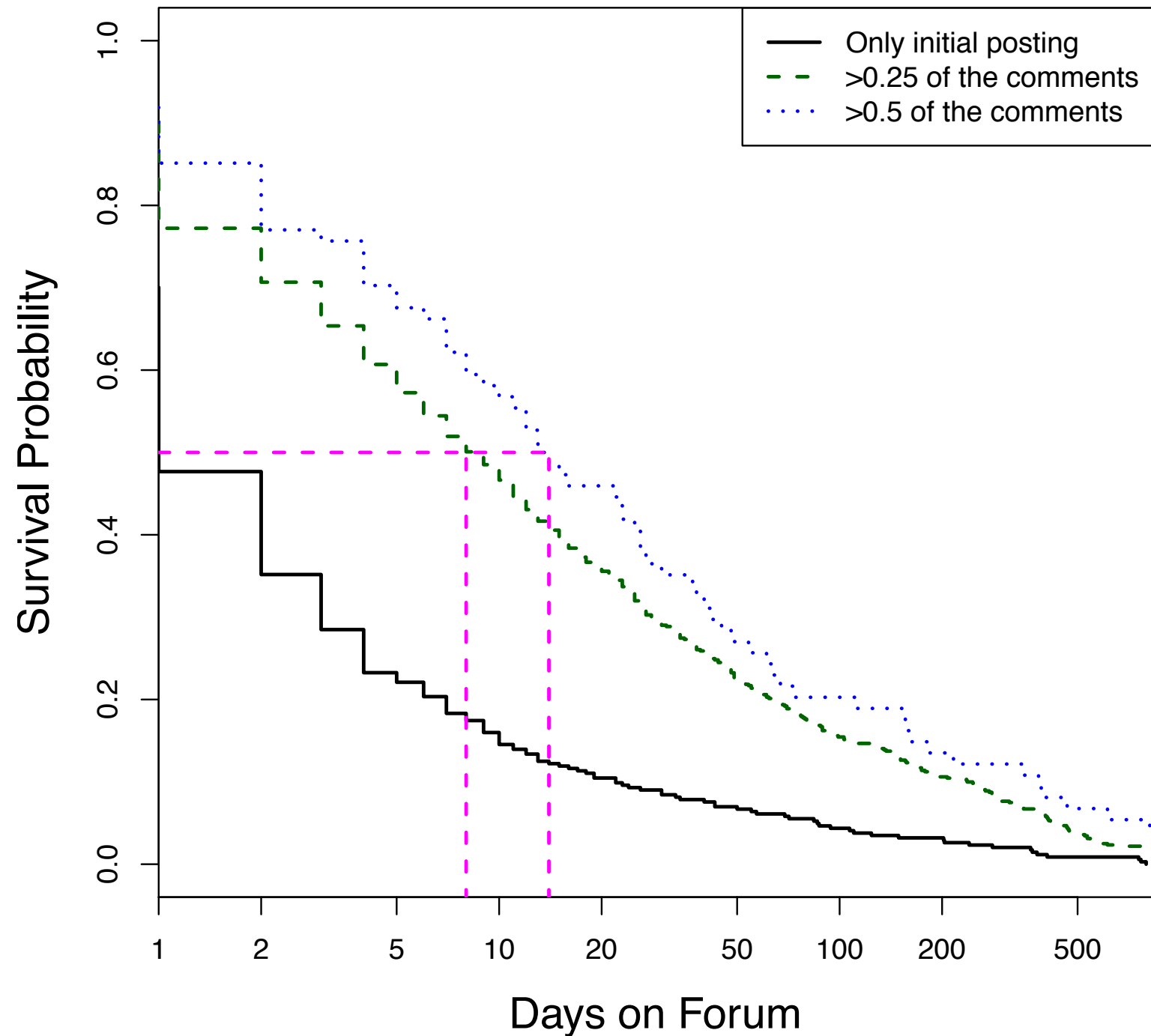
Lifetime of Scams



Lifetime of Scams



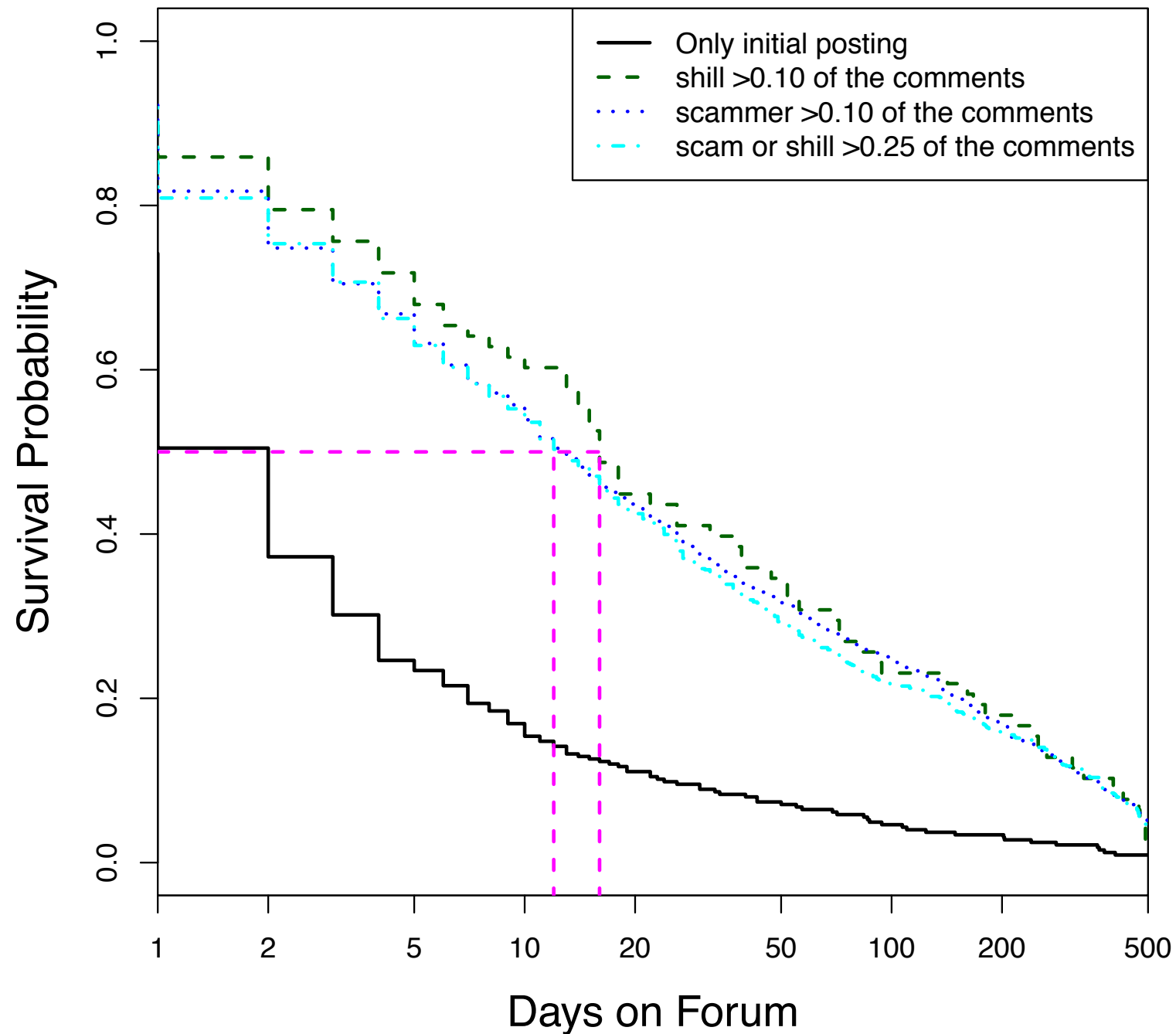
Scammer Interaction



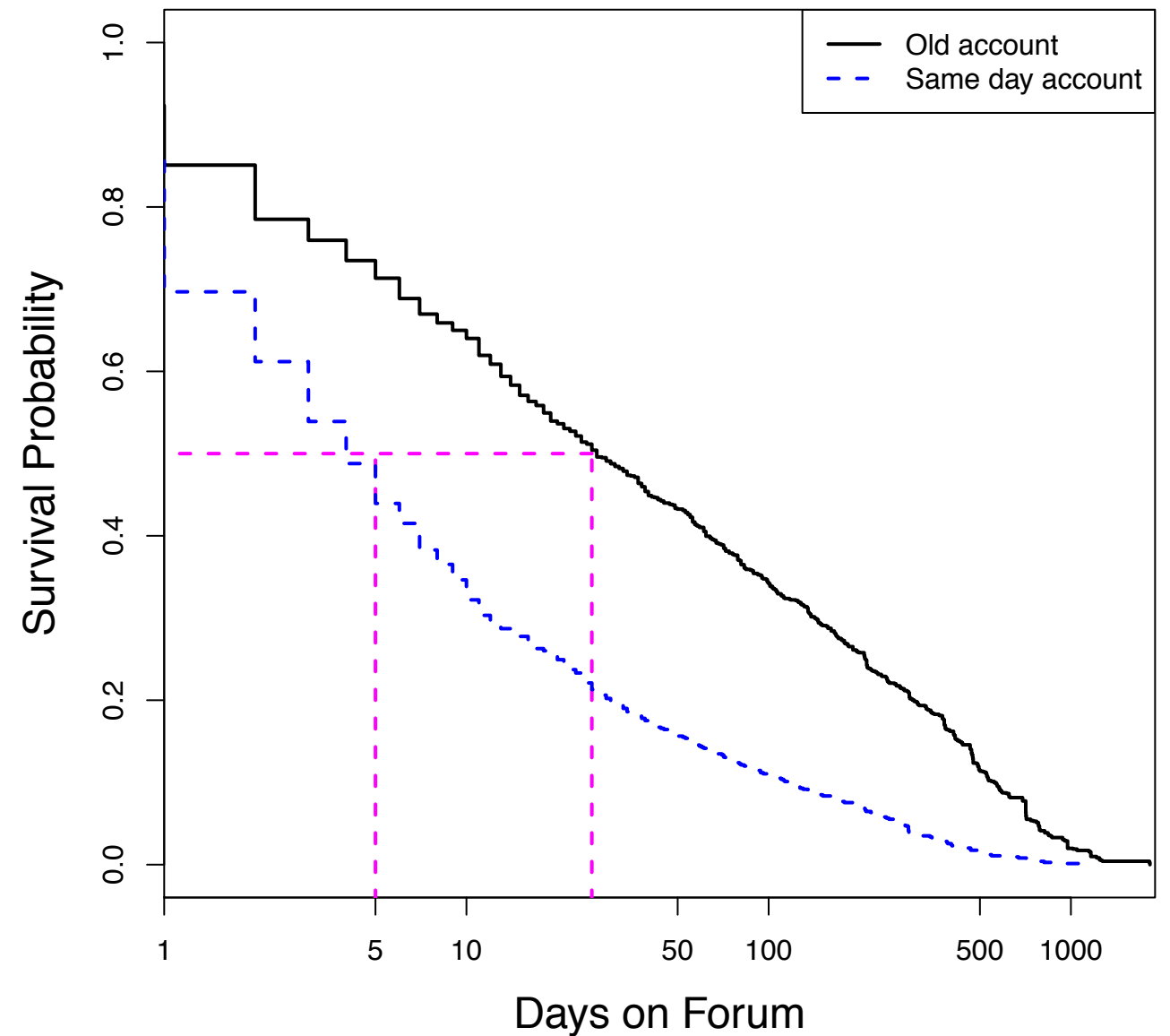
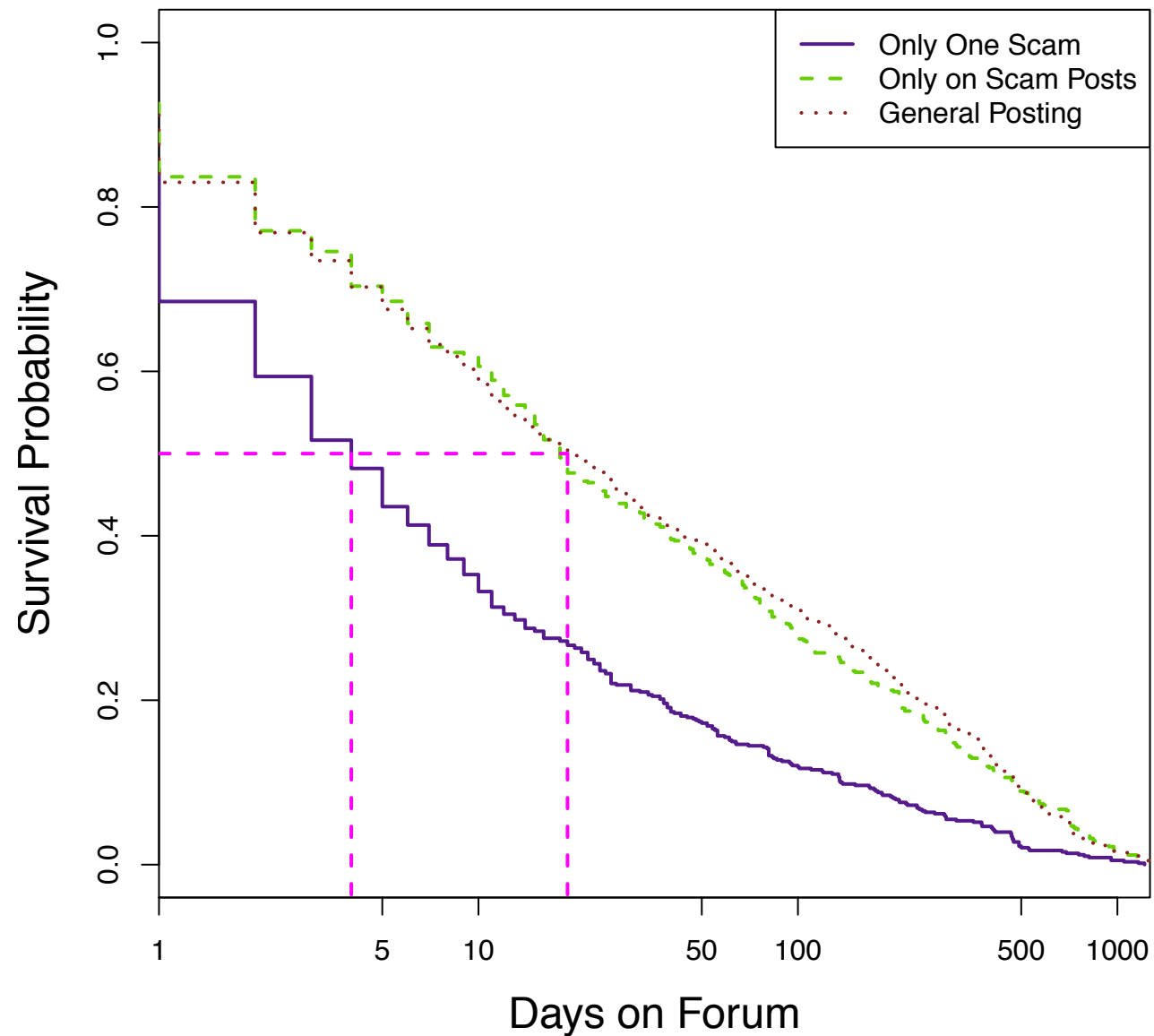
Identifying shills

- Shills: users which we believe are the attacker under a different name
- Finding ground truth on shills: manually inspect threads, look for unusually positive posters & strong but false or unverifiable information
- Use forum history (only posts about one scam) to identify most of these users

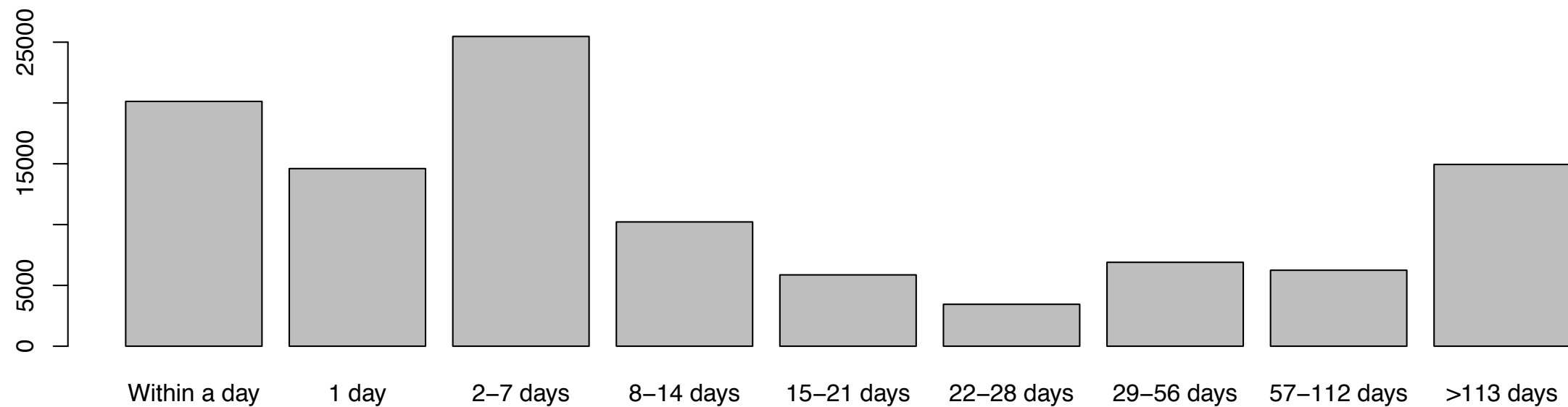
Shill Interaction



Scammer Forum History



Ponzi Victims over Time



Forum History of Ponzi Victims

Category	# Victim Posts	# Other Posts	
Altcoins (all)	32 536	5 429 022	(-)
Alternative Clients	106	54 159	(-)
Bitcoin Discussion	8 872	998 246	(+)
Development & Technical Discussion	683	162 405	(-)
Group Buys	498	84 734	
Hardware	2 730	518 728	(-)
Mining	427	1 044 148	(-)
Mining software (miners)	274	67 561	(-)
Mining speculation	616	63 071	(+)
Pools	885	177 985	(-)
Press	696	74 437	(+)
Project Development	1 526	137 245	(+)
Technical Support	586	58 952	(+)
Auctions	1 865	108 048	(+)
Collectibles	1 063	60 745	(+)
Computer hardware	1 462	118 584	(+)
Currency exchange	3 124	138 264	(+)
Digital goods	7 303	277 903	(+)
Economics	3 692	1 204 450	(-)

Forum History of Ponzi Victims

Gambling	12 070	1 297 038	(+)
Gambling discussion	5 677	340 593	(+)
Games and rounds	23 331	388 689	(+)
Goods	1 251	587 681	(-)
Investor-based games	15 402	115 454	(+)
Lending	3 230	138 108	(+)
Marketplace	517	5 372 844	(-)
Micro Earnings	3 694	144 797	(+)
Scam Accusations	4 643	116 151	(+)
Securities	1 338	202 813	
Service Announcements	2 338	288 993	(+)
Service Discussion	3 692	330 535	(+)
Services	8 528	407 342	(+)
Speculation	5 058	883 584	(-)
Trading Discussion	1 678	257 930	
Local (all)	14 932	4 454 405	(-)
Archival	1 026	147 836	
Beginners & Help	3 923	564 720	
Meta	1 960	134 319	(+)
Off-topic	8 309	563 710	(+)
Politics & Society	2 181	290 782	

Cox Proportional Hazards Model

- Lots of measurable variables seem to affect lifetime — but which variables are responsible?
- A proportional hazards model lets us disentangle the effects of various measures on **lifetime**.
- Dependent variable: lifetime
- Independent variables: explanatory factors

Cox Proportional Hazards Model: Independent Variables

- **daily # victim comments**
 - Number of victim comments over the lifetime of the scam.
- **daily # scammer comments**
 - Number of scammer comments over the lifetime of the scam.
- **shill has posted?**
 - True if a “shill” has posted anywhere in the thread. (30% of the time)
- **same day account**
 - True if the scammers’ bitcointalk account was registered the same day as the original post for the scam. (43% of the time)

Cox Proportional Hazards Model: Results

	coef	exp(coef)	95% CI	<i>p value</i>
Daily # victim comments	0.028	1.029	(1.022, 1.036)	<<0.0001
Daily # scammer comments	0.022	1.022	(1.002, 1.043)	0.034
Shill has posted?	-0.846	0.429	(0.385, 0.479)	<<0.0001
Same day account	0.374	1.1453	(1.320, 1.599)	<<0.0001

Log-rank test: $Q=4389.2$, $p<<0.0001$, $R^2 = 0.218$

Conclusions

- Developed semi-automated methodology for finding Bitcoin Ponzi schemes
- Found over 1,700 of these scams, half of which end within a week of being started.
- Frequency of victim and scammer posts is negatively correlated with scam survival
- Forum history positively correlated with scam survival