

## MEDIA FACT-CHECK SHEET

[Sabrina](#) joined the Perimeter Institute at age 27 as the founder and principal investigator of her [Celestial Holography Initiative](#). Perimeter's initial seed funding of one million for Celestial Holography was a result of her [discovery at age 21](#) of a new observable memory effect in gravity! :o) She has since made seminal contributions elucidating the imprint of asymptotic symmetries in the dual celestial formulation of gravity; discovered infinite dimensional symmetry enhancements of the S-matrix; created a framework for generalizing these IR features to other theories; and a systematic method to recast S-matrix elements as co-dimension 2 CFT correlators.

That first million was matched 11-fold by the Simons Foundation as part of their new Collaboration on Celestial Holography. Sabrina is leading a team of amplitudes, mathematical physics, and quantum gravity researchers in a concerted effort to tackle the problem of uniting our understanding of spacetime with quantum theory by encoding our universe as a hologram. [Simply put](#), Sabrina's novel approach, [now endorsed by Simons](#), involves an exciting collaboration of researchers from various subfields to explore how our age-old fascination with the night sky merges with cutting-edge advancements in our understanding of quantum gravity!

Sabrina started flying at 9, along the Chicago lakefront with a CFI. No one in her family had a pilot's license. Her grandpa spent \$10,000 on a 1972 Cessna 150 ([N5286Q](#)) for her 10th birthday. It would break down often. Sabrina was inspired by a pilot from the David Letterman Show named Jamail Larkins—he flew solo in Canada at 14 as opposed to 16 in the US. In Canada, they teach you how to spin aircraft and fly low, something that is not required in the US. (Huron Flight Centre) Sabrina was born and raised in Chicago, not a suburb. She voted in Chicago and did jury service in Cook County until moving to Princeton in September of 2019.

At 10, Sabrina had bought an engine rebuild stand, cheap eBay red tagged (damaged) crankcase/crankshaft/cylinders/pistons/etc to repeatedly practice building and tearing down an O-200A engine in the foyer outside her bedroom in hopes of one day rebuilding her Cessna's engine.

Sabrina was 11 when she bought 10 acres of the [West Texas Spaceport](#) for \$2,950 so she could one day work for Blue Origin in West Texas. By the time she was 12: her dad had started flying and earned his private pilot's license; she had [piloted FAA1 w/the FAA Administrator](#); and helped her IA (mechanic) rebuild her Cessna 150's timed-out engine.

At age 12, Sabrina used the serviceable spare parts from her old Cessna engine and other serviceable (non-red tag) parts from various vendors to build up her kit aircraft engine with Teledyne Continental Motors, [Rolls-Royce](#), and Superior Air Parts.

Between 12 and 14, Sabrina assembled a Zenith Zodiac standard-build air-frame kit ([N5886Q](#)) and in the process put in 95% of its 15,000 rivets. About a dozen other people put in rivets, including a kindergartner, first grader and several other Edison Regional Gifted Center classmates. N5886Q's total cost including trailer & tools was \$36,000. (They sold their '04 Vette at Car Max for \$32,000 to buy parts.)

Sabrina soloed in Canada in her Cessna 150 at [13 years, 364 days and several hours old](#), '14-enough' as Transport Canada would say. That same day, the [Jeff Bezos letter](#) arrived, offering to hire her, and she applied for the FAA to accept her Canadian solo certificate so she could solo in the US that year. She then enrolled in the Illinois Mathematics and Science Academy, a boarding high school. MIT notarized the airworthiness paperwork on her completed aircraft in January of 2008. The FAA MISO accepted Sabrina's certification of airworthiness after an inspection and the airplane flew its maiden flight (dad) the next clear day. In February of 2008, a [Fermilab Nobel Laureate](#) helped punch out the data plate for Sabrina's next craft, N5887Q, [the first plasma-powered craft registered with the FAA](#). Future Secretary of Education, [Arne Duncan](#) (Sabrina's former CPS school chief) mailed the paperwork to the FAA while Leon Lederman (the founder of her high school, IMSA) mailed copies to Jeff Bezos.

Sabrina purchased her first motorcycle, a new [Harley 883L](#), for dealer cost, \$5,000, at 15 and then got her L permit and a \$300 Honda. She then earned her [M permit](#). The FAA never approved her age waiver. She turned 16 but no one she knew would sign her off to fly her kit airplane since a dozen people flying 601XL kits had died at that point. She found a CFI, [Tron Guy](#) from the Jimmy Kimmel show, who signed her off in Minnesota after flying with him in his airplane. She flew the airplane she had built on her first US solo in August of 2009 at 16. She flew only within KARR's airspace. She then failed her motorcycle exam at 16 but passed her driver's license exam. She finally passed her motorcycle exam at 16 on her 1977 Honda XL175. She also owned a 1972 Honda CB450 and a 1985 Honda CB125S at that time. She took the ACT and SAT but did not take any College Board Advanced Placement exams and had no college credits going into university. She did not apply to a 'safety school.'

Sabrina's application for early admission to MIT was denied in December of 2009. She was wait listed by MIT in March of 2010 and rejected by Harvard that April. Sabrina was the last student to be [admitted to MIT](#) off their wait list in May of 2010 with the help of both a Harvard and an MIT Nobel Laureate, a Guggenheim Medalist from Phantom Works, and a retired Secretary of the Air Force.

She was going to bring N5286Q, the Cessna, to MIT but MassPort would not issue an airport security pass to a 16-year-old. She was going to bring her [CB450](#) to MIT but her insurance would have quadrupled. Her three years at MIT were described as awesome. They admitted her to their grad program in early 2013. The next day, Harvard admitted her. [While still a teenager](#), Sabrina graduated #1 at MIT Physics--the first girl to win the MIT Physics Orloff Scholarship award; and tied for the top overall GPA at MIT institute-wide: 5.00. [A 5.00 at MIT](#) is different than a 5.0 since one can earn a 5.0 at MIT with ALL A-s and 1 B-. Harvard was described as awesome as well. They are the only two universities she had ever applied to until her postdoctoral applications in 2018. She now rides a Honda CBR300R. MIT Admissions issued their inaugural Honorary Early Action Tube in the Fall of 2016, nunc pro tunc December 16, 2009. Harvard was free thanks to [Hertz](#). Her three years at MIT cost \$144,000 (or 4 airplanes :oP)

Here is an essay Sabrina wrote in 2010: <https://physicsgirl.com/1.pdf> and here is her take on the [Ozy](#) title: <https://physicsgirl.com/ozy.pdf>

Sabrina in 2017: "I am just a grad student. [I have so much to learn](#). I do not deserve the attention."

Sabrina's first book made it to the Moon in April of 2019 and apparently stayed there: <https://youtu.be/GtyOkUEtQ0U?t=94>

According to Harvard's Graduate School of Arts and Sciences, the publication of Sabrina's April 2019 PhD [dissertation](#) in Physics Reports was only the second time Harvard had a dissertation published in Physics Reports and the first since 1974. To quote Harvard's Dean Dench: "Sabrina is the first female Physics PhD from Harvard, and only the second Harvard PhD, to be honored in this way. And she is in **\*extremely\*** good company. All my best, Emma" The first Harvard student to do so was David Politzer. His 1974 PhD [dissertation](#) helped him win the 2004 Nobel Prize in Physics.



Sabrina does not have and has never had a Facebook, Twitter, LinkedIn or Instagram account. Don't believe anyone, esp. someone on Quora, who claims Sabrina has ever discussed her IQ with them—it has never happened. It is not in her nature. Back in 1997, Chicago had 30,000 incoming kindergartners for 30 possible seats at Edison Regional Gifted Center in 1998. At the time, Edison was the only gifted Kindergarten class in CPS. CPS offered non-mandatory IQ testing. The top 30 scores got into the '98 class regardless of race or sex. The highest possible score on that particular test was 160. All 30 in her class scored 160. That does not mean they are 160. With an error of +/-15, it meant the floor was 145 and the sky was the limit for those thirty 4-year-olds. Her class was representative of the overall Chicago population.