

8. International Jost Bürgi-Symposium, 26. April 2025

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The little town of Lichtensteig (SG), where the astronomer and clockmaker Jost Bürgi (1552 - 1632) was born, was awarded the Wakker Prize by the Swiss Heritage Society in January 2023 for its exemplary townscape design. Not only the historic townscape was taken into account, but also the 'care of intangible cultural heritage' practiced by the annual Bürgi symposia. One of the historical centers is the Goldiger Boden square (Figure), close to Bürgi's birthplace, where Bürgi learned the craft trade of blacksmith from his father.

Later in the course of his life and far away from Lichtensteig, he perfected his skills to those of a fine silversmith, which allowed him to build clocks accurate to the second, which he needed for his astronomical research. His life's work culminated in the collaboration with Johannes Kepler in the golden city of Prague at the imperial court of Rudolf II. The Symposium 2025 traces the golden path through the life of the important clockmaker, mathematician and astronomer Bürgi.

The symposium starts with a talk about Benjamin Bramer, the foster son of Bürgi, giving some insight into Bürgi's private and scientific life. It is followed by five presentations on the topic clocks. All presentations are held in German, except for talk 3.



Goldiger Boden
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The symposium will also be broadcast virtually. Details you will find at the webpage <https://www.jostbuergi.com/symposium-2/>. Nevertheless, we would like to encourage you to come to Lichtensteig in person. Enjoy this special place, which not only breathes history, but also provides the ideal backdrop for exchanging ideas with clock specialists and gaining new inspirations.

Venue

Kronensaal, Hauptgasse 2, 9620 Lichtensteig

Program Schedule

09.30 - 10.00	General Assembly of the Verein Jost Bürgi Forum
Expert-Workshop (Public event)	
Talk 1 10.00 - 10.45	The life and work of Bürgi's foster son Benjamin Bramer (1588-1652) <i>Peter Ullrich, University Koblenz (D)</i> Benjamin Bramer was the youngest brother of Jost Bürgi's first wife and was taken into their home after the death of his father in 1591. He became Bürgi's pupil and produced popular descriptions of his inventions. Bramer himself also contributed to the application of mathematics to technical problems, was influenced by the young René Descartes (1596 - 1650) - and was a professional fortress builder in one of the areas of Germany most devastated by the Thirty Years' War.
Talk 2 10.45 - 11.30	How my Watches are made? <i>Miki Eleta (Website)</i> How and why did I become a watchmaker? From the idea to the finished watch: research, choice of materials, sketches, finding solutions to unexpected challenges. Each of my watches is unique. Along the way, I was inspired by great masters, including Jost Bürgi, to create ever-changing representations of time. Different world cultures, astronomy, physics, mathematics, aesthetics, symbolism, languages become visible in my work.
Break	
Talk 3 11.45 - 12.30	«Timekeeping before the pendulum: on the controversies around Verge and Foliot machines» <i>Robert Cailliau *)</i> Verge-and-Foliot (VF) machines were widely used before the invention of the pendulum clock, Jost Bürgi's being among the last and most advanced ones. Very little in-depth study has been made about the accuracy of VF machines. They acquired a bad reputation, textbooks on mechanical timekeepers dismissing them with a few lines, if mentioning them at all. This talk reports on research conducted on a few extant machines and some specially constructed new ones, hoping to show VF clocks are much more interesting than supposed.
Lunch	

<p>Talk 4 13.45 - 14.25</p>	<p>The so-called horizontal Table Clock and the Migration of Clockmakers and Forms in the 16th and 17th Centuries</p> <p><i>Peter Plassmeyer, Director of the Mathematical-Physical Salon of the Dresden State Art Collections</i></p> <p>We have known table clocks with a horizontal dial since the early days of spring-driven mechanical clocks. They reached a technical maturity round 1600, when Jost Bürgi created a mechanical masterpiece of artisanal splendor. It is astonishing how long this type of clock found market acceptance and how widely it spread in similar versions through the migration of clockmakers. In some places, they remained on the market until the second half of the 18th century.</p>
<p>Talk 5 14.30 - 15.20</p>	<p>Was the quartz watch the end? How Swiss luxury watches survived the crisis and conquered the market</p> <p><i>David Seyffer, IWC (Website)</i></p> <p>The "quartz crisis" of the 1970s revolutionized the watch industry: inexpensive quartz watches pushed mechanical timepieces out of the mass market, which were then repositioned as luxury objects. The lecture outlines these upheavals, from the transformation of the industry to the significance of mechanical watches as cultural assets today. Special attention is paid to the watch manufacturer IWC Schaffhausen, whose history exemplifies these developments and shows how tradition and innovation could be successfully combined.</p>
<p>Break</p>	
<p>Talk 6 15.35 - 16.15</p>	<p>Atom Clocks</p> <p><i>Steve Lecomte, CSEM Centre Suisse d'Electronique et de Microtechnique, Neuenburg (Website)</i></p> <p>While hidden and often unknown, atomic clocks are key to modern society. No telecommunication, no precise positioning, no financial transaction time tagging, as we daily utilize, would be possible without this technology. Switzerland has a long tradition in this field and continues to be a worldwide leader. Based on quantum principles, miniature and high-performance next generation atomic clocks developed at CSEM will be presented.</p>
<p>End</p>	

*) Robert Cailliau and Tim Berners-Lee developed hypertext software at Cern in 1990, which later led to the creation of the World Wide Web.